Gevo, Inc.
Form 10-K
March 30, 2015

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

Form 10-K

(Mark One)

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2014

or

¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
Commission file number: 001-35073

Gevo, Inc.

(Exact name of registrant as specified in its charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization)	87-0747704 (I.R.S. Employer Identification No.)
345 Inverness Drive South, Building C, Suite 310, Englewood, CO (Address of Principal Executive Offices)	80112 (Zip Code)

(303) 858-8358

(Registrant’s telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, par value $0.01 per share	NASDAQ Capital Market

Securities registered pursuant to Section 12(g) of the Act:

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes x No ¨

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No ¨

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ¨

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ¨	Accelerated filer ¨
Non-accelerated filer x (Do not check if a smaller reporting company)	Smaller reporting company ¨

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No x

The aggregate market value of the voting stock held by non-affiliates of the registrant, based on the closing sale price of the common stock on June 30, 2014 was approximately $59.4 million. Shares of common stock held by each officer, director and holder of 5% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of outstanding shares of the registrant’s common stock, par value $0.01 per share, as of February 28, 2015 was 138,090,748.

DOCUMENTS INCORPORATED BY REFERENCE

None

GEVO, INC.

FORM 10-K—ANNUAL REPORT

For the Fiscal Year Ended December 31, 2014

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Forward-Looking Statements

This report contains forward-looking statements. When used anywhere in this Annual Report on Form 10-K (this "Report"), the words "expect," "believe," "anticipate," "estimate," "intend," "plan" and similar expressions are intended to ide forward-looking statements. These statements relate to future events or our future financial or operational performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Such risks and uncertainties include those related to the achievement of advances in our technology platform, the success of our retrofit production model, our ability to gain market acceptance for our products, additional competition, changes in economic conditions, and those described in documents we have filed with the Securities and Exchange Commission (the "SEC"), including this Report in "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Risk Factors" and subsequent reports on Form 10-Q. All forward-looking statements in this document are qualified entirely by the cautionary statements included in this document and such other filings. These risks and uncertainties could cause actual results to differ materially from results expressed or implied by forward-looking statements contained in this document. These forward-looking statements speak only as of the date of this document. We disclaim any undertaking to publicly update or revise any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. Unless the context requires otherwise, in this Report the terms "we," "us," "our" and "Company" refer to Gevo, Inc. and its wholly-owned and indirect subsidiaries.

This Report contains estimates and other information concerning our target markets that are based on industry publications, surveys and forecasts, including those generated by SRI Consulting, a division of Access Intelligence, LLC ("SRI"), Chemical Market Associates, Inc. ("CMAI"), the U.S. Energy Information Association (the "EIA"), the International Energy Agency (the "IEA"), the Renewable Fuels Association (the "RFA"), and Nexant, Inc. ("Nexant"). Certain target market sizes presented in this Report have been calculated by us (as further described below) based on such information. This information involves a number of assumptions and limitations and you are cautioned not to give undue weight to this information. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in "Risk Factors." These and other factors could cause actual results to differ materially from those expressed in these publications, surveys and forecasts.

Conventions that Apply to this Report

With respect to calculation of product market volumes:

product market volumes are provided solely to show the magnitude of the potential markets for isobutanol and the products derived from it. They are not intended to be projections of our actual isobutanol production or sales;
product market volume calculations for fuels markets are based on data available for the year 2011;
product market volume calculations for chemicals markets are based on data available for the year 2012; and
volume data with respect to target market sizes is derived from data included in various industry publications, surveys and forecasts generated by the EIA, the IEA and Nexant.

We have converted these market sizes into volumes of isobutanol as follows:

we calculated the size of the market for isobutanol as a gasoline blendstock and oxygenate by multiplying the world gasoline market volume by an estimated 12.5% by volume isobutanol blend ratio;
we calculated the size of the specialty chemicals markets by substituting volumes of isobutanol equivalent to the volume of products currently used to serve these markets;

- we calculated the size of the petrochemicals and hydrocarbon fuels markets by calculating the amount of isobutanol that, if converted into the target products at theoretical yield, would be needed to fully serve these markets (in substitution for the volume of products currently used to serve these markets); and
- for consistency in measurement, where necessary we converted all market sizes into gallons.

Conversion into gallons for the fuels markets is based upon fuel densities identified by Air BP Ltd. and the American Petroleum Institute.

PART I

Item 1. Business.
Company Overview

We are a renewable chemicals and next generation biofuels company. Our strategy is to commercialize biobased alternatives to petroleum-based products to allow for the optimization of fermentation facilities' assets, with the ultimate goal of maximizing cash flows from the operation of those assets. We have developed proprietary technology that uses a combination of synthetic biology, metabolic engineering, chemistry and chemical engineering to focus primarily on the production of isobutanol, as well as related products from renewable feedstocks. Isobutanol is a four-carbon alcohol that can be sold directly for use as a specialty chemical in the production of solvents, paints and coatings or as a value-added gasoline blendstock. Isobutanol can also be converted into butenes using dehydration chemistry deployed in the refining and petrochemicals industries today. The convertibility of isobutanol into butenes is important because butenes are primary hydrocarbon building blocks used in the production of hydrocarbon fuels, lubricants, polyester, rubber, plastics, fibers and other polymers. We believe that the products derived from isobutanol have potential applications in substantially all of the global hydrocarbon fuels market, representing a potential market for isobutanol of approximately 1,000 billion gallons per year ("BGPY"), and in approximately 40% of the global petrochemicals market, representing a potential market for isobutanol of approximately 70 BGPY. When combined with a potential specialty chemical market for isobutanol of approximately 1.2 BGPY, we believe that the potential global market for isobutanol is greater than 1,000 BGPY.

We believe that products derived from our isobutanol will be drop-in products, which means that our customers will be able to replace petroleum-based intermediate products with renewable isobutanol-based intermediate products without modification to their equipment or production processes. The final products produced from our renewable isobutanol-based intermediate products should be chemically and physically identical to those produced from petroleum-based intermediate products, except that they will contain carbon from renewable sources. Customer interest in our renewable isobutanol is primarily driven by our production route, which we believe will be cost-efficient, and our renewable isobutanol's potential to serve as a cost-effective, environmentally sensitive alternative to the petroleum-based intermediate products that they currently use. We believe that at every step of the value chain, renewable products that are chemically identical to the incumbent petrochemical products will have lower market adoption hurdles in contrast with other bioindustrial products because the infrastructure and applications for such products already exist. In addition, we believe that products made from biobased isobutanol will be subject to less raw material cost volatility than the petroleum-based products in use today because of the lower historical cost volatility of agricultural feedstocks compared to oil.

In order to produce and sell isobutanol made from renewable sources, we have developed the Gevo Integrated Fermentation Technology® ("GIFT®"), an integrated technology platform for the efficient production and separation of renewable isobutanol. GIFT® consists of two components, proprietary biocatalysts that convert sugars derived from multiple renewable feedstocks into isobutanol through fermentation, and a proprietary separation unit that is designed to continuously separate isobutanol during the fermentation process. We developed our technology platform to be compatible with the existing approximately 23 BGPY of global operating ethanol production capacity, as estimated by the RFA.

GIFT® is designed to permit (i) the retrofit of existing ethanol capacity to produce isobutanol, ethanol or both products simultaneously or (ii) the addition of renewable isobutanol or ethanol production capabilities to a facility's existing ethanol production by adding additional fermentation capacity side-by-side with the facility's existing ethanol fermentation capacity (collectively referred to as "Retrofit"). Having the flexibility to switch between the production of isobutanol and ethanol, or produce both products simultaneously, should allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions. GIFT® is also designed to allow relatively low capital expenditure Retrofits of existing ethanol facilities, enabling a rapid route to isobutanol production from the fermentation of renewable feedstocks. We believe that our production route will be cost-efficient and will enable rapid deployment of our technology platform and allow our isobutanol and related renewable products to be economically competitive with many of the petroleum-based products used in the chemicals and fuels markets today.

We expect that the combination of our efficient proprietary technology, our marketing focus on providing drop-in substitutes for incumbent petrochemical products and our relatively low capital investment Retrofits will mitigate many of the historical issues associated with the commercialization of renewable chemicals and fuels.

Direct Use Markets

Without modification, isobutanol has applications in the specialty chemical and gasoline blendstock markets. Since our potential customers in these markets would not be required to develop any additional infrastructure to use our isobutanol, we believe that selling into these markets will result in a relatively low risk profile and produce attractive margins.

Specialty Chemicals

Isobutanol has direct applications as a specialty chemical. High-purity and chemical-grade isobutanol can be used as a solvent and chemical intermediate. We plan to produce high-purity and chemical-grade isobutanol that can be used in the existing butanol markets as a cost-effective, environmentally sensitive alternative to petroleum-based products.
We believe that our production route will be cost-efficient and will allow for significant expansion of the historical isobutanol markets within existing butanol markets through displacing n-butanol, a related compound to isobutanol that is currently sold into butanol markets.
We estimate the total addressable worldwide market for isobutanol as a specialty chemical to be approximately 1.2 BGPY, or approximately $5.0 billion annually, based on average 2014 ICIS isobutanol pricing.

Gasoline Blendstocks

Isobutanol has direct applications as a gasoline blendstock. Fuel-grade isobutanol may be used as a high energy content, low Reid Vapor Pressure (“RVP”), gasoline blendstock and oxygenate. Based on isobutanol’s low water solubility, in contrast with ethanol, we believe that isobutanol will be compatible with existing refinery infrastructure, allowing for blending at the refinery rather than blending at the terminal.
Further, based on isobutanol’s high energy content and low water solubility, as well as testing completed by the National Marine Manufacturers Association (“NMMA”), the Outdoor Power Equipment Institute (“OPEI”) and Briggs & Stratton (“BASCO”), we believe that isobutanol has direct applications as a blendstock in high value specialty fuels markets serving marine, off-road vehicles, small engine and sports vehicle markets.
We estimate the total addressable worldwide market for isobutanol as a gasoline blendstock to be approximately 40 BGPY, or approximately $100 billion annually.

Butene and Hydrocarbon Markets

Beyond direct use as a specialty chemical and gasoline blendstock, isobutanol can be dehydrated to produce butenes which can then be converted into other products such as para-xylene, jet fuel and many other hydrocarbon fuels and specialty blendstocks, offering substantial potential for additional demand. The conversion of isobutanol into butenes is a fundamentally important process that enables isobutanol to be used as a building block chemical in multiple markets.

Jet Fuel

We have demonstrated the conversion of our isobutanol into a renewable jet fuel blendstock that meets current ASTM International (“ASTM”) and U.S. military synthetic jet fuel blendstock performance and purity requirements. We have successfully delivered to the U.S. Air Force, the U.S. Army and the U.S. Navy a combined total of approximately 76,000 gallons of jet fuel made from isobutanol. We are working to obtain an ASTM standard specification for the use of such jet fuel blendstock in commercial aviation. We have already presented positive test results from fit-for-purpose testing of our biojet fuel to ASTM’s ‘alcohol-to-jet’ (“ATJ”) task force. The full ASTM specification for our ATJ fuel is expected to be issued in 2015.
Military and commercial airlines are currently looking to form strategic alliances with biofuels companies to meet their renewable fuel needs.
We estimate the global market for jet fuel to be approximately 80 BGPY, or approximately $210 billion annually.

Para-xylene (“PX”) and Polyethylene Terephthalate (“PET”)

Isobutanol can be used to produce PX, polyester and their derivatives, which are used in the beverage, food packaging, textile and fibers markets. PX is a key raw material in PET production.
We estimate the global market for PET to be approximately 50 million metric tons per year, or approximately $100 billion annually, of which approximately 30% will be used for plastic bottles and containers. We have demonstrated the conversion of our isobutanol into renewable PX at the demonstration plant in Silsbee, TX. This demonstration

plant has been producing renewable PX since September 2013 and, in May 2014, we shipped renewable PX to Toray Industries, Inc. (“Toray Industries”) under the terms of a supply agreement.

Butenes

Traditionally butenes have been produced as co-products from the process of cracking naptha in the production of ethylene. Historically, lower natural gas prices and reported reductions in the use of naptha as the feedstock for the production of ethylene have resulted in a projected reduction in the volume of available butenes. This structural shift in feedstocks increases the potential market opportunity for our isobutanol in the production of butenes.
Chemical-grade isobutanol can be sold to isobutylene and n-butene (butenes) chemicals users for conversion into lubricants, methyl methacrylate and rubber applications.
We estimate the total addressable worldwide market for butenes to be approximately 2.1 BGPY, or approximately $6.0 billion annually.

Other Hydrocarbon Fuels

Diesel fuel, gasoline, isooctane, isooctene and bunker fuel may also be produced from our isobutanol. We have demonstrated the conversion of isobutanol to isooctane and renewable gasoline. We have also converted isobutanol to kerosene with properties that we expect may be fit for diesel blending applications.

Our Retrofit Strategy

We plan to commercialize our isobutanol through a strategy of Retrofitting existing ethanol production facilities to produce isobutanol and related renewable products and have developed our technology platform to be compatible with the existing approximately 23 BGPY of global operating ethanol production capacity. We believe that our design will enable us to switch between the production of isobutanol and ethanol, or produce both products simultaneously, which will allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions.

The Retrofit approach allows us to project lower capital outlays and a faster commercial deployment schedule than the construction of new plants. We believe the ability of GIFT® to convert sugars from multiple renewable feedstocks into isobutanol will enable us to leverage the abundant domestic sources of historically low cost grain feedstocks (e.g., corn) currently used for ethanol production and will potentially enable the expansion of our production capacity into international markets that use sugar cane or other feedstocks that are prevalent outside of the U.S.

We are developing our Retrofit equipment package through our exclusive alliance with ICM, Inc. (“ICM”), a leading engineering firm that has designed approximately 50% of current North American operating ethanol production capacity, which the RFA estimates to be approximately 15 BGPY. We plan to secure access to existing ethanol production facilities through joint ventures, licensing arrangements, tolling partnerships and direct acquisitions. We then plan to work with ICM to deploy GIFT® through Retrofit of these production facilities.

In September 2010, we acquired a 22 million gallon per year (“MGPY”) ethanol production facility in Luverne, Minnesota (the “Agri-Energy Facility”). The Agri-Energy Facility is a traditional dry-mill facility, which means that it uses dry-milled corn as a feedstock. In partnership with ICM, we developed a detailed Retrofit design for this facility and began the Retrofit in 2011. In May 2012, we commenced initial startup operations for the production of isobutanol at the Agri-Energy Facility. In September 2012, as a result of a lower than planned production rate of isobutanol we made the strategic decision to pause isobutanol production at the Agri-Energy Facility at the conclusion of startup operations to focus on optimizing specific parts of the process to further enhance isobutanol production rates. In 2013, we made modifications to our Agri-Energy Facility which we believe will allow us to increase the production rate. In June 2013, we resumed the limited production of isobutanol operating one fermenter and one GIFT® separation system in order to (i) verify that the modifications had significantly reduced the previously identified infections, (ii) demonstrate that our biocatalyst performs in the one million liter fermenters at the Agri-Energy Facility, and (iii) confirm GIFT® efficacy at commercial scale at the Agri-Energy Facility. In August 2013, we expanded production capacity at the Agri-Energy Facility by adding a second fermenter and second GIFT®

system to further verify our results with a second configuration of equipment. For these initial production runs, we demonstrated fermentation operations at commercial scale combined with the use of our GIFT® separation system using a dextrose (sugar) feedstock. Based on the results of these initial production runs, in October 2013 we began commissioning the Agri-Energy Facility on corn mash to test isobutanol production run rates and to optimize biocatalyst production, fermentation separation and water management systems. In March 2014, we decided to leverage the flexibility of our GIFT® technology and further modify the Agri-Energy Facility in order to enable the simultaneous production of isobutanol and ethanol. In July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. In line with our strategy to maximize asset utilization and site cash flows, this configuration of the plant should allow us to continue to optimize our isobutanol technology at a commercial scale, while taking advantage of potentially superior ethanol contribution margins. Also with a view to maximizing site cash flows, over certain periods of time, we may and have operated the plant for the sole production of ethanol across all four fermenters.

Through December 31, 2014, we have incurred capital costs of approximately $65.6 million on the Retrofit of the Agri-Energy Facility. The Retrofit of the Agri-Energy Facility includes a number of additional capital costs that are unique to the design of the facility, including additional equipment that we believe will allow us to switch between ethanol and isobutanol production, modifications to increase the potential production capacity of GIFT® at this facility and the establishment of an enhanced yeast seed train to accelerate the adoption of improved yeast strains at this facility and at future plants. Capital expenditures at the Agri-Energy Facility also include upfront design and engineering costs, plant modifications identified as necessary during initial startup operations for the production of isobutanol and capitalized interest.

Until May 2012, when we commenced initial Retrofit startup operations for the production of isobutanol at the Agri-Energy Facility, we derived revenue from the sale of ethanol, distiller's grains and other related products produced as part of the ethanol production process at the Agri-Energy Facility. Continued ethanol production during the Retrofit process allowed us to retain local staff for the future operation of the plant, maintain the equipment and generate cash flow. Our Retrofit strategy includes the ability to switch between the production of isobutanol and ethanol, or produce both products simultaneously, with an emphasis on maximizing cash flows at a site. We believe that we will be able to transition back to the production and sale of ethanol and related products at the Agri-Energy Facility, in whole or in part, if we were to project positive cash flows from ethanol operations versus maintaining the facility at idle or producing isobutanol, including any costs related to the transition, but there is no guarantee that this will be the case. As a result, the historical operating results of our subsidiary, Agri-Energy, LLC ("Agri-Energy"), and the operating results reported during the Retrofit to isobutanol production may not be indicative of future operating results for Agri-Energy or Gevo's consolidated results. The future return on our invested capital depends on our ability to maximize cash flows from the Retrofit of the Agri-Energy Facility.

In June 2011, we entered into an isobutanol joint venture agreement (the "Joint Venture Agreement") with Redfield Energy, LLC, a South Dakota limited liability company ("Redfield"), under which we have agreed to work with Redfield to Retrofit Redfield's approximately 50 MGPY ethanol production facility located near Redfield, South Dakota (the "Redfield Facility") for the commercial production of isobutanol. Under the terms of the Joint Venture Agreement, we are responsible for all costs associated with the Retrofit of the Redfield Facility. We are entitled to a percentage of Redfield's profits, losses and distributions after commercial production of isobutanol has begun. As of December 31, 2014, we have incurred $0.4 million in planning-related costs, such as project engineering and permitting costs, for the future Retrofit of the Redfield Facility. Based on our preliminary engineering estimates, we will need to raise additional debt or equity capital to Retrofit the Redfield Facility, but are not obligated to do so under the Joint Venture Agreement.

We are currently in discussions with several other ethanol plant owners that have expressed an interest in entering into joint ventures, licensing arrangements or tolling arrangements with us or selling their facilities to us for Retrofit. However, there can be no assurance that we will be able to acquire access to ethanol plants from these owners. We have also entered into a non-binding collaborative agreement with the Malaysian government's East Coast Economic Region Development Council, Malaysian Biotechnology Corporation and the State Government of Terengganu with the intent to develop a cellulosic biomass isobutanol facility in Southeast Asia.

We have commenced a licensing strategy whereby a licensee would invest the capital for the Retrofit of its own ethanol plant or for a new greenfield build out of an isobutanol-producing plant. In return, Gevo, as the licensor, would expect to receive an up-front license fee and ongoing royalty payments from the project. In October 2013, Gevo signed a letter of intent with IGPC Ethanol Inc. to Retrofit their approximately 40 MGPY ethanol plant. In March 2014, Gevo signed a letter of intent with Porta Hnos S.A. which contemplates Porta Hnos S.A. becoming the exclusive licensee of Gevo's GIFT® technology in Argentina. In November 2014, Gevo signed a letter of intent with Highlands EnviroFuels, LLC which contemplates Highlands EnviroFuels, LLC obtaining a license from Gevo to produce renewable isobutanol at a plant that would be bolted on to the back-end of a sugar cane and sweet sorghum syrup mill and have a nameplate capacity of approximately 20 to 25 MGPY of isobutanol. These letters of intent demonstrate interest in entering into licensing arrangements with the Company; however there is no guarantee that these letters of intent will lead to binding, definitive agreements.

Customer Agreements

We commenced a limited commercial scale campaign for the production of isobutanol in 2014 at our Agri-Energy Facility to demonstrate commercial scale capacity and sell the resulting product. We expect initial commercial production to be directed to serve the high-purity and chemical-grade markets, to provide introductory volumes to the specialty fuel blendstock markets in the U.S. and to be further processed at a demonstration plant near Houston, Texas, to fulfill contracts for various hydrocarbons applications such as ATJ and PX. In 2014, we also began producing and selling isobutanol distiller's grains ("iDGs™") as an animal feed co-product, in a similar manner as distiller's grains are sold in the ethanol industry today.

As of December 31, 2014, we have entered into the following agreements:

Off-take Agreements

Mansfield Oil Company. In August 2011, we entered into a commercial off-take agreement with Mansfield Oil Company ("Mansfield") to distribute isobutanol-based fuel into the petroleum market. Mansfield markets and distributes fuel to thousands of commercial customers across the U.S. and has over 900 supply points across the U.S. The agreement allows Mansfield to blend our isobutanol for its own use and to be a distributor of our isobutanol for a term of five years. We also entered into a three-year supply services agreement, with automatic one-year renewals thereafter, with C&N, a Mansfield subsidiary ("C&N"), which will provide supply chain services including logistics management, customer service support, invoicing and billing services. Substantially all ethanol sold by Agri-Energy since its acquisition in September 2010 was sold to C&N pursuant to a separate ethanol purchase and marketing agreement.

Land O'Lakes Purina Feed LLC. In December 2011, we entered into a commercial off-take and marketing agreement with Land O'Lakes Purina Feed LLC ("Land O'Lakes Purina Feed") for the sale of iDGs™ produced by the Agri-Energy Facility. Land O' Lakes Purina Feed provides farmers and ranchers with an extensive line of agricultural supplies (feed, seed, and crop protection products) and services. Pursuant to the agreement, Land O'Lakes Purina Feed will be the exclusive marketer of our iDGs™ and modified wet distiller's grains for the animal feed market. The agreement has an initial three-year term following the first commercial sales of iDGs™ with automatic one-year renewals thereafter unless terminated by one of the parties. Further, we plan to work with Land O'Lakes Purina Feed to explore opportunities to upgrade the iDGs™ for special value-added applications in feed markets. Land O' Lakes Purina Feed also provides marketing services for the sale of our ethanol distiller grains.

Supply and Commercialization Agreements

U.S. Military. In September 2011, we were awarded a contract by the Defense Logistics Agency (the "DLA"), to supply ATJ to the U.S. Air Force. The DLA sources and provides nearly 100% of the consumable items the U.S. military needs to operate. Under the contract, we provided the U.S. Air Force with 11,000 gallons of ATJ which was used to support engine testing and a demonstration flight in an A-10 aircraft. The term of the agreement was through December 30, 2012. The demonstration flight was successfully completed in June 2012. The ATJ was produced from isobutanol at a hydrocarbon processing demonstration plant near Houston, Texas, in partnership with South Hampton Resources, Inc. ("South Hampton"). In September 2012, we were awarded an additional contract for the procurement of up to 45,000 gallons of ATJ. In March 2013, the Company entered into a contract with the DLA to supply the U.S. Army with 3,650 gallons of biojet fuel and in May 2013 this initial order was increased by 12,500 gallons. In September 2013, the Company entered into a contract with the DLA to supply the U.S. Navy with 20,000 gallons of biojet fuel.

Toray Industries. In June 2011, we announced that we had successfully produced fully renewable and recyclable PET in cooperation with Toray. Working directly with Toray Industries, we employed prototypes of commercial operations from the petrochemical and refining industries to make PX from isobutanol. Toray Industries used our bio-para-xylene ("bio-PX") and commercially available renewable mono ethylene glycol to produce fully renewable PET films and fibers. In June 2012, we entered into a definitive agreement with Toray Industries, as amended in October 2013, for the joint development of an integrated supply chain for the production of bio-PET. Pursuant to the terms of the agreement with Toray Industries, we received $1.0 million which we used for the design and construction of a demonstration plant. Toray Industries was obligated to purchase initial volumes of bio-PX produced at the demonstration plant. In May 2014, we successfully shipped these initial volumes of bio-PX.

LANXESS. In May 2010, we entered into a non-binding heads of agreement outlining the terms of a future supply agreement with LANXESS Inc. ("LANXESS"), an affiliate of LANXESS Corporation, a stockholder in our Company. LANXESS is a specialty chemical company with global operations that currently produces butyl rubber from petrochemical-based isobutylene. Isobutylene is a type of butene that can be produced from isobutanol through straightforward, well-known chemical processes. Pursuant to the heads of agreement, LANXESS has proposed to purchase at least 20 MGPY of our isobutanol for an initial term of 10 years, with an option to extend the term for an additional five years. The pricing under our heads of agreement with LANXESS includes a mechanism that adjusts for future changes in the cost of our feedstock. In January 2011, we also entered into an exclusive supply agreement, as amended, with LANXESS pursuant to which LANXESS has granted us an exclusive first right to supply LANXESS and its affiliates with certain of their requirements of biobased isobutanol during the initial ten-year term. These agreements demonstrate the demand for isobutanol from the Agri-Energy Facility. However, certain of the commitments that we have received are non-binding and there can be no assurance that we will be able to negotiate final terms with these or other companies in a timely manner, or at all, or attract customers based on our arrangements with the petrochemical companies and large brand owners discussed above.

Competitive Strengths

Our competitive strengths include:

Renewable platform molecule to serve multiple large drop-in markets. We believe that our isobutanol will readily substitute for petroleum-based isobutanol and a portion of the petroleum-based n-butanol in use in the specialty chemicals market which exists today. We believe isobutanol can be readily blended with gasoline in existing infrastructure to serve the need for biofuels blending demanded by the U.S. Environmental Protection Agency (the “EPA”) for fuel manufacturers. We also believe that the butenes produced from our isobutanol will have potential applications in a significant percentage of the global hydrocarbon fuels market and will serve as renewable alternatives in the production of polyester, rubber, plastics, fibers and other polymers, which comprise approximately 40% of the global petrochemicals market.
Proprietary, low cost technology with global applications. We believe that GIFT® is capable of producing isobutanol cost-effectively from renewable carbohydrate sources, which we expect will enable the economic production of hydrocarbon derivatives of isobutanol. Our biocatalysts have demonstrated a product yield on sugar of approximately 94% of theoretical maximum by weight, which is close to the maximum actual yield attainable from fermentable sugars. Collectively, we believe that these attributes, coupled with our ability to leverage the existing ethanol production infrastructure, will create relatively low capital cost routes to renewable isobutanol production which will enable our isobutanol to be economically competitive with many of the petroleum-derived products used in the chemicals and fuels markets today. Additionally, GIFT® is designed to enable the economic production of isobutanol and other alcohols from multiple renewable feedstocks, which will allow our technology to be deployed worldwide.
Capital-light commercial deployment strategy optimized for existing infrastructure. We believe that GIFT® allows us to leverage the existing approximately 23 BGPY of global operating ethanol production capacity and that our Retrofit strategy supports a relatively low capital cost route to isobutanol production. Using a factored estimate based on the detailed design of the Agri-Energy Facility in combination with our learning from the Retrofit of that facility, we estimate base Retrofit costs to convert an existing grain ethanol plant’s production capacity to isobutanol production capacity will be approximately $1.00 per gallon of existing annual ethanol capacity. This projection translates to approximately $50 million for a 50 MGPY ethanol facility and approximately $100 million for a 100 MGPY ethanol facility. These projected Retrofit capital expenditures are less than estimates for new plant construction for the production of advanced biofuels, including cellulosic ethanol.
Technology design enables optimized asset utilization. Our GIFT® design will enable us to switch between the production of isobutanol and ethanol, or produce both products simultaneously, which we believe will allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions. Following the completion of a Retrofit, we expect the original plant to operate in essentially the same manner as it did prior to the Retrofit, producing primary products (isobutanol and/or ethanol) and co-products (iDGs™ and/or distiller’s grains). In July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. In line with our strategy to maximize asset utilization and site cash flows, we believe that this configuration of the plant should allow us to continue to optimize our isobutanol technology at a commercial scale, while taking advantage of potentially superior margin opportunities from the production of ethanol. Our long-term goal is to maximize margins at any plant that has undergone a Retrofit.
GIFT® demonstrated at commercially relevant scale. We have demonstrated fermentation operations with the use of our GIFT® separation system at commercial scale in one million liter fermenters using a corn mash feedstock at our Agri-Energy Facility. In addition, we previously completed the Retrofit of a one MGPY ethanol facility in St. Joseph, Missouri with our proprietary engineering package designed in partnership with ICM and we successfully produced isobutanol at this facility.
Off-take agreements and strategic relationships with chemicals, fuels, animal feed and engineering industry leaders in place. We have entered into off-take agreements and strategic relationships with global industry leaders to accelerate the execution of our commercial deployment strategy both in the U.S. and internationally. To facilitate the adoption of

our technology at existing ethanol plants, we have entered into an exclusive alliance with ICM. We expect our relationships with entities such as Mansfield Oil Company, Toray Industries, the U.S. Air Force, the U.S. Army, and the U.S. Navy, among others, to contribute to the development of new chemical and fuel market applications of our isobutanol. To enable the future integration of cellulosic feedstocks into our isobutanol production process, we have obtained an exclusive license from Cargill, Incorporated ("Cargill"), to integrate its proprietary biocatalysts into our GIFT® system. To accelerate the adoption of isobutanol as a platform molecule and to support the development of hydrocarbon products derived from our isobutanol, we have developed a hydrocarbon demonstration plant near Houston, Texas with South Hampton.

Experienced team with a proven track record. Our management team offers an exceptional combination of scientific, operational and managerial expertise and our CEO, Dr. Patrick Gruber, has spent over 20 years developing and successfully commercializing industrial biotechnology products. As a result of their extensive experience, members of our management team play important roles in the industrial biotechnology industry at national and international levels. Across the Company, our employees have hundreds of combined years of biotechnology, synthetic biology and biobased product experience. Our employees have been inventors on over 300 patents and patent applications over the course of their careers. Our team members have played key roles in the commercialization of several successful, large-scale industrial biotechnology projects, including a sugar substitute sweetener, four organic acid technologies, an animal feed additive, monomers for plastics and biobased plastics and the first biologically derived high-purity monomer for the production of plastic at a world-scale production facility.

Our Production Technology Platform

We have used tools from synthetic biology, biotechnology and process engineering to develop a proprietary fermentation and separation process to cost effectively produce isobutanol from renewable feedstocks. GIFT® is designed to allow for relatively low capital expenditure Retrofits of existing ethanol facilities, enabling a rapid route to isobutanol production from the fermentation of renewable feedstocks, while maintaining the flexibility to revert to the production of ethanol or the simultaneous production of isobutanol and ethanol. GIFT® isobutanol production is very similar to existing ethanol production, except that we replace the ethanol producing biocatalyst with our isobutanol producing biocatalyst and we incorporate well-known equipment into the production process to separate and collect the isobutanol during the fermentation process. We believe that reusing large parts of the ethanol plant without modification is beneficial because the unchanged parts will stay in place and continue to operate after the Retrofit as they did when ethanol was produced. This means that the existing operating staff can continue to manage the production of isobutanol because they will already have experience with the base equipment. We believe this continuity will reduce the risks associated with the production startup following the Retrofit as most of the process is unchanged and the existing operating staff is available to monitor and manage the production process. In addition, we believe that our GIFT® design will enable us to switch between the production of isobutanol and ethanol, or produce both products simultaneously, which will allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions.

We intend to process the spent grain mash from our fermenters to produce iDGs™, relying on established processes in the current ethanol industry. We plan to market our iDGs™ to the dairy, beef, swine and poultry industries as a high-protein, high-energy animal feed. To support these efforts, in December 2011 we entered into an exclusive off-take and marketing agreement with Land O'Lakes Purina Feed for the sale of iDGs™ produced at the Agri-Energy Facility. We believe that our sales of our iDGs™ will allow us and our partners to offset a significant portion of our grain feedstock costs, in the same manner as is practiced by the corn-based ethanol industry today through the sale of dry distiller's grains.

Biocatalyst Overview

Our biocatalysts are microorganisms that have been designed to metabolize sugars to produce isobutanol. Our technology team develops these proprietary biocatalysts to efficiently convert fermentable sugars of all types by engineering isobutanol pathways into the biocatalysts, and then minimizing the production of unwanted by-products to improve isobutanol yield and purity, thereby reducing operating costs. With our biocatalysts, we have demonstrated that we can produce isobutanol at key commercial parameters, which we believe validates our biotechnology pathways and efficiencies. Our planned commercial biocatalyst is designed to produce isobutanol from any fuel ethanol feedstock currently in commercial use, including grains (e.g., corn, wheat, sorghum and barley) and sugar cane. This feedstock flexibility supports our initial deployment in the U.S., as we seek to Retrofit available ethanol production facilities which are primarily focused on corn feedstocks, and will enable our future expansion into international markets for production of isobutanol using sugar cane or other grain feedstocks.

Although development work still needs to be done, we have shown at laboratory scale that we can convert cellulosic sugars into isobutanol. In addition, through an exclusive license and a services arrangement with Cargill, we are developing a cellulosic sugar converting biocatalyst specifically designed to efficiently produce isobutanol from the sugars derived from cellulosic feedstocks, including crops that are specifically cultivated to be converted into fuels (e.g., switchgrass), forest residues (e.g., waste wood, pulp and sustainable wood), agricultural residues (e.g., corn stalks, leaves, straw and grasses) and municipal green waste (e.g., grass clippings and yard waste). We carefully select our biocatalyst platforms based on their tolerance to isobutanol and other conditions present during an industrial fermentation process, as well as their known utility in large-scale commercial production processes. As a result, we expect our biocatalysts to equal or exceed the performance of the yeast used in prevailing grain ethanol production processes.

Biocatalyst Development

Initially, we used a pathway developed at the University of California, Los Angeles ("UCLA") and exclusively licensed from The Regents of the University of California ("The Regents"), to create a research biocatalyst capable of producing biobased isobutanol. We chose to use E. coli as the bacteria for our research biocatalyst because it is easier to use and better understood relative to other biocatalysts, and because it was the microorganism used by UCLA in developing the licensed pathway. We then developed a new yeast biocatalyst to allow for anaerobic, or oxygen free, isobutanol production as well as to minimize the production of unwanted by-products to improve isobutanol yield and purity, thereby reducing operating costs. These efforts resulted in a substantial fermentation yield increase and enabled compatibility with existing ethanol infrastructure.

By fermenting sugars to isobutanol while reducing the production of unwanted by-products, our proprietary isobutanol pathway channels the available energy content of fermentable sugars to isobutanol. Due to thermodynamic constraints that govern the conservation of energy, other processes may match our yield, but will be unable to exceed it significantly. We have achieved approximately 94% of the theoretical yield, which is near to, if not the maximum practical yield limit attainable from the fermentation of sugars. Our expected theoretical yield is equivalent to that of industrial ethanol production.

We designed our biocatalysts to equal or exceed the performance of the yeast currently used in commercial ethanol production not only in yield, or percentage of the theoretical maximum percentage of isobutanol that can be made from a given amount of feedstock, but also fermentation time, or how fast the sugar fed to the fermentation is converted to isobutanol. At least matching this level of performance is important to our initial commercial production because doing so allows GIFT® fermentation to be performed in most existing grain ethanol fermenters without increasing vessel sizes. Because an isobutanol molecule contains more carbon and hydrogen than an ethanol molecule, and because liquid isobutanol has a different density than liquid ethanol, the isobutanol volume that our fermentation process produces will be approximately 80% of the volume of ethanol produced by ethanol fermentation at an equivalent fermentation theoretical yield on sugar. In other words, ICM’s design studies predict that a Retrofitted 100 MGPY ethanol plant can produce approximately 80 MGPY of isobutanol. A volume of 80 million gallons of isobutanol has roughly the same energy content as 100 million gallons of ethanol. Over time, we anticipate being able to the increase the productivity of our yeast biocatalyst, thereby allowing for the production of a greater volume of isobutanol over the same fermentation time which would allow for an increase in expected annual isobutanol production. Based on this expectation, we increased the size of the proprietary isobutanol separation system that was installed at the Agri-Energy Facility to accommodate potential increased isobutanol production.

We initially achieved our target fermentation performance goals with our research biocatalyst at our GIFT® mini-plant and then replicated this performance in a Retrofitted one MGPY ethanol demonstration facility located at ICM’s St. Joseph, Missouri site. Yeast is generally the preferred host for industrial fermentation because it is industrially proven for biofuels production, capable of out-competing bacteria, and is less susceptible to bacteriophage, a common problem for bacterial fermentations. We select biocatalysts for their projected performance in the GIFT® process, targeting lower cost isobutanol production. We continue to seek to improve the performance parameters of our biocatalyst with a goal of reducing projected operating costs, increasing operating reliability and increasing the volume of isobutanol production.

Feedstock Flexibility

We have designed our biocatalyst platform to be capable of producing isobutanol from any fuel ethanol feedstock currently in commercial use, which we believe, in conjunction with our proprietary isobutanol separation unit, will permit us to Retrofit any existing fuel ethanol facility. We have demonstrated that our biocatalysts are capable of converting the types of sugars in grains and sugar cane to isobutanol at our commercial targets for fermentation time and yield and we believe that they will have the ability to convert these sugars into isobutanol at a commercial scale. The vast majority of fuel ethanol currently produced in the U.S. is produced from corn feedstock, which is abundant according to data from the U.S. Department of Agriculture and the RFA. Although development work still needs to be done, we have shown at laboratory scale that we can convert cellulosic sugars into isobutanol. Through an exclusive license with Cargill, we are developing a future-generation yeast biocatalyst that is specifically designed to produce isobutanol from mixed sugars derived from cellulosic sources including purpose grown energy crops, agricultural residues, forest residues and municipal green waste.

We expect that our feedstock flexibility will allow our technology to be deployed worldwide and will enable us to offer our customers protection from the raw material cost volatility historically associated with petroleum-based products.

GIFT® Improves Fermentation Performance

Our experiments show that the GIFT® fermentation and recovery system provides enhanced fermentation performance as well as efficient recovery of isobutanol and other alcohols. The GIFT® system enables continuous separation of isobutanol from the fermentation tanks while fermentation is in process. Isobutanol is removed from the fermentation broth using a low temperature distillation to continuously remove the isobutanol as it is formed without the biocatalyst being affected. Since biocatalysts have a low tolerance for high isobutanol concentrations in fermentation, the ability of our process to continuously remove isobutanol as it is produced allows our biocatalyst to continue processing sugar into isobutanol at a high rate without being suppressed by rising levels of isobutanol in the fermenter, reducing the time to complete the fermentation. Using our biocatalysts, we have demonstrated that GIFT® enables isobutanol fermentation times equal to, or less than, those achieved in the current conventional production of ethanol, which allows us to fit our technology into existing ethanol fermenters reducing capital expenditures. We have designed a proprietary engineering package in partnership with ICM to carry out our isobutanol fermentation and recovery process.

GIFT® requires limited change to existing ethanol production infrastructure. As with ethanol production, feedstock is ground, cooked, treated with enzymes and fermented. Just like ethanol production, after fermentation, a primary product (isobutanol) and a co-product (iDGs™) are recovered for sale. The main modifications of the GIFT® system are replacing the ethanol producing yeast with Gevo's proprietary isobutanol producing biocatalyst, and adding low temperature distillation equipment for continuous removal and separation of isobutanol.

Conversion of Isobutanol into Hydrocarbons

We have demonstrated conversion of our isobutanol into a wide variety of hydrocarbon products which are currently used to produce plastics, fibers, polyester, rubber and other polymers and hydrocarbon fuels. Hydrocarbon products consist entirely of hydrogen and carbon and are currently derived almost exclusively from petroleum. Importantly, isobutanol can be dehydrated to produce butenes, which are an intermediate product in the production of hydrocarbon products with many industrial uses. The straightforward conversion of our isobutanol into butenes is a fundamentally important process that enables isobutanol to be used as a building block chemical. Much of the technology necessary to convert isobutanol into butenes and subsequently into these hydrocarbon products is known and practiced in the chemicals industry today, as shown in an SRI research study. For example, the dehydration of ethanol to ethylene, which uses a similar process and technology to the dehydration of isobutanol, is practiced commercially today to serve the ethylene market. The dehydration of isobutanol into butenes is not commercially practiced today because isobutanol produced from petroleum is not cost-competitive with other petrochemical processes for generation of butenes. We believe that our efficient fermentation technology for producing isobutanol will promote commercial isobutanol dehydration and provide us with the opportunity to access hydrocarbon markets. To assist in accessing these markets, we have developed a hydrocarbon demonstration plant at our partner South Hamptons' site near Houston, Texas. The demonstration plant can process up to 10,000 gallons of our isobutanol per month into a variety of renewable hydrocarbons for use as fuels and chemicals.

Our Strategy

Our strategy is to commercialize our isobutanol for use directly as a specialty chemical and fuel blendstock and for conversion into plastics, fibers, polyester, rubber, and other polymers and hydrocarbon fuels. Key elements of our strategy include:

Deploy first commercial production facility. In September 2010, we acquired a 22 MGPY ethanol production facility in Luverne, Minnesota, the Agri-Energy Facility. Following completion of the initial work to Retrofit the Agri-Energy Facility, in May 2012, we commenced initial startup operations for the production of isobutanol at the Agri-Energy Facility. In September 2012, as a result of a lower than planned production rate of isobutanol we made the strategic decision to pause isobutanol production at the Agri-Energy Facility at the conclusion of startup operations to focus on optimizing specific parts of the process to further enhance isobutanol production rates. We have since made modifications to our Agri-Energy Facility which we believe will allow us to increase the production rate and, in October 2013, we commissioned the Agri-Energy Facility on corn mash to test isobutanol production run rates and to optimize biocatalyst production, fermentation separation and water management systems. In March 2014, we decided to leverage the flexibility of our GIFT® technology and further modify the Agri-Energy Facility in order to enable the simultaneous production of isobutanol and ethanol. In July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. In line with our strategy to maximize asset utilization and site cash flows, this configuration of the plant should allow us to continue to optimize our isobutanol technology at a commercial scale, while taking advantage of potentially superior ethanol contribution margins. Also with a view to maximizing site cash flows, over certain periods of time, we may and have operated the plant for the sole production of ethanol across all four fermenters.

Build on existing agreements with customers to support capacity growth. We have entered into off-take or supply agreements with Mansfield, Land O'Lakes Purina Feed, Toray Industries and the DLA on behalf of the U.S. Air Force, U.S. Army and U.S. Navy. We intend to add to our customer pipeline by entering into isobutanol supply agreements for further capacity with additional customers in the refining, specialty chemicals and transportation sectors both in the U.S. and internationally.

Expand our production capacity via Retrofit of additional existing ethanol facilities. As we secure supply agreements with additional customers, we plan to expand our production capacity by increasing production capacity at our current locations and acquiring or gaining access to additional and larger scale ethanol facilities via joint ventures, licensing arrangements, tolling arrangements and acquisitions. We believe that our exclusive alliance with ICM will enhance our ability to rapidly deploy our technology on a commercial scale.

Expand adoption of our isobutanol across multiple applications and markets. We intend to drive adoption of our isobutanol in multiple U.S. and international chemicals and fuels end-markets by offering a renewable product with superior properties at a competitive price. In addition, we intend to leverage existing and potential strategic partnerships with hydrocarbon companies to accelerate the use of isobutanol as a building block for drop-in hydrocarbons. We plan to implement this strategy through direct supply agreements with leading chemicals and fuels companies, as well as through alliances with key technology providers.

Align the value chain for our isobutanol by collaborating with large brand owners and customers. We are developing commitments from large brand owners to purchase products made from our isobutanol by third-party chemicals and fuels companies. For example, we have entered into a definitive agreement with Toray Industries for the joint development of an integrated supply chain for the production of bio-PET. We have also successfully completed the scope of work under a joint research, development, license and commercialization agreement with The Coca-Cola Company ("Coca-Cola") to create bio-PX from plant-based isobutanol, which is intended to accelerate the development of Coca-Cola's second-generation PlantBottle™ packaging made from 100% plant-based materials. Further discussion with production partners is envisioned to scale up the bio-PX technology.   We have also been awarded contracts to supply ATJ to the U.S. Air Force, U.S. Army and U.S. Navy. We intend to leverage these commitments, as well as future agreements, to obtain contracts to sell our isobutanol directly into the manufacturing chain to those who will use our isobutanol as a building block in the production of PX, PET, biojet fuel and other hydrocarbon products.

Incorporate additional feedstocks into our isobutanol production facilities. Our biocatalysts can produce isobutanol from any fuel ethanol feedstock currently in commercial use, including grains (e.g., corn, wheat, sorghum and barley) and sugar cane. We believe the ability of our biocatalysts to produce isobutanol from multiple feedstocks will support our future efforts to expand production of isobutanol in the U.S., as well as into international markets that use sugar cane or other grain feedstocks, either directly or through partnerships. We are also developing a future-generation biocatalyst under contract with Cargill, which we believe will enable us to efficiently integrate mixed sugars from cellulosic feedstocks into our production facilities when the technology to separate and break down cellulosic biomass into separate simple sugar molecules becomes commercially available.

Industry Overview

Petroleum is a fundamental source of chemicals and fuels, with annual global demand in 2011 estimated at $3.2 trillion based on data from the IEA. Globally organic chemicals and fuels targeted by us are primarily derived from petroleum, as it has historically been convenient and inexpensive. However, recent fundamental trends, including increasing petroleum demand (especially from emerging markets), limited new supply, price volatility and the changing regulatory framework in the U.S. and internationally with regard to the environmental impact of fossil fuels has increased the potential need for economical, renewable and environmentally sensitive alternatives to petroleum at more stable prices.

These market developments, combined with advances in synthetic biology and metabolic pathway engineering, have encouraged the convergence between the industrial biotechnology and energy sectors. These new technologies enable the production of flexible platform chemicals, such as isobutanol, from renewable sources instead of fossil fuels, at economically competitive costs. Based on our compilation of data from SRI, Nexant, CMAI, the EIA and the IEA, we believe that isobutanol and the products derived from it have potential applications in approximately 40% of the global petrochemicals market and substantially all of the global fuels market, and that our isobutanol fulfills an immediate need for alternatives to petroleum. Previous attempts to create renewable, cost-effective alternatives to petroleum-based products have faced several challenges:

First generation renewable products are not considered drop-in solutions for existing petroleum infrastructure. Many products contemplated by earlier manufacturers are not considered effective alternatives to conventional petroleum due to various limitations, including lower energy content, viscosity and corrosive properties which limit pipeline transportation or require expensive engine modifications.

Capital intensity. Due to the high capital cost incurred in establishing new biofuels plants, numerous companies face limited expansion and customization opportunities and have not been able to relocate to areas with access to new or more cost-effective feedstocks.

Reliance on regulatory environment. Many conventional alternatives to current nonrenewable chemicals and fuels have relied heavily on government subsidies. In the absence of governmental support, these alternatives face significant operational hurdles and are often no longer economically viable.

Abundant supply of petroleum-based products. Traditionally butenes have been produced as co-products from the process of cracking naptha in the production of ethylene. Reported reductions in the use of naptha as the feedstock for the production of ethylene have changed the projected menu of co-products, resulting in a projected reduction in the volume of available butenes. This structural shift in feedstocks increases the potential market opportunity for our isobutanol in the production of butenes.

Advantages of Our Isobutanol

We believe our isobutanol provides advantages over both petroleum-based products and alternative renewable chemicals and fuels. These advantages are based on the chemical properties of isobutanol and our low cost production technology.

Lower cost to produce than petroleum isobutanol. We believe our biobased route to produce isobutanol will be lower cost than the predominant route to produce petroleum-based isobutanol. This will allow us to offer our biobased isobutanol to the existing isobutanol markets at a price we believe will encourage customers to switch from petroleum-based butanol to our biobased isobutanol. Further, we believe our lower cost production will enable the development of new uses for isobutanol as a building block for a variety of intermediate chemicals and hydrocarbon products and as a gasoline blendstock.
Alternative source of four-carbon hydrocarbons. Butenes, hydrocarbon products with many industrial uses, can be produced through the dehydration of isobutanol. We believe that butenes derived from our isobutanol can be further processed into other high-value hydrocarbon products using currently known chemistries, as shown in research reports by SRI and CMAI. These include ethyl tert-butyl ether, propylene and MMA, for use in plastics, industrial coatings and other chemical additives, such as antioxidants and plastics modifiers. The prevailing process to manufacture butenes for use by the petrochemical industry today is through the process of cracking naptha in the production of ethylene. Ethylene crackers produce butenes as a co-product and the butenes market has tightened as these crackers have shut down and have shifted or committed to shift from oil to natural gas feedstocks, reducing the available supply of butenes. As a result, we expect the hydrocarbons derived from our isobutanol to provide chemical and fuel producers with both supply chain diversity and alternatives to current petroleum-derived products, which can be particularly important in a tight petrochemicals environment.
Feedstock flexibility. We believe our biocatalysts will produce isobutanol cost-effectively at a commercial scale from any feedstock currently used to produce grain ethanol. Additionally, these biocatalysts provide the ability to convert sugar cane into isobutanol, which provides us with opportunities to expand our production into areas with sugar cane ethanol facilities. Moreover, our work with Cargill to develop a future-generation biocatalyst enabling cellulosic isobutanol production will position us to integrate non-food-based feedstocks into our production facilities when the technology to separate and break down cellulosic biomass into separate simple sugar molecules becomes commercially available. We believe that having the flexibility to use different crops and agricultural by-products as a feedstock for isobutanol production is a particularly attractive trait to the chemicals and fuels markets and has the potential to mitigate their exposure to petroleum price volatility.
Optimized for existing infrastructure. Isobutanol is a fungible, drop-in fuel with chemical and performance characteristics as a fuel additive that are well known. For example, due to its low water solubility, we believe isobutanol can be transported in pipelines and blended into gasoline formulations at the refinery in contrast to prevailing practices where ethanol is blended at the terminal and cannot be transported via pipelines. Initial test results from DNV Columbus, Inc., a materials testing company, showed that isobutanol did not contribute to stress corrosion cracking in pipeline materials under conditions where ethanol typically would. We believe that refiners are interested in the possibility of using isobutanol to replace more expensive alkylates in their gasoline formulations. In addition, we believe that an important and distinct advantage of isobutanol is its potential ability to align the interests of refiners, commodity agriculture and the ethanol industry, accelerating the development of a biobased economy.
Highly effective solution to current regulatory limitations. The EPA currently limits gasoline blends for use in normal automobile engines to a maximum of 15% ethanol for model years 2001 and later, and 10% for all other model years. Isobutanol can expand biofuel market opportunities as a fuel blendstock as we expect it to be blended into gasoline at higher levels without modifying engines or gasoline distribution logistics. In November 2010, our isobutanol was approved by the EPA for 12.5% blending with gasoline. Additionally, we have filed a dossier for advanced isobutanol with the EPA. Even if made from corn in Retrofitted ethanol plants, isobutanol can qualify as an advanced biofuel if it can provide a 50% lifecycle greenhouse gas (“GHG”) reduction compared to 2005 baseline gasoline. Lifecycle GHG emissions are the aggregate quantity of GHGs related to the full fuel cycle, including all stages of fuel and feedstock

production and distribution, from feedstock generation and extraction through distribution, delivery and use of the finished fuel. Furthermore, because isobutanol contains approximately 30% more energy than ethanol, each gallon of isobutanol provides a renewable identification number ("RIN") value of 1.3. Therefore, a refiner could purchase fewer gallons of isobutanol than ethanol while meeting its biofuels obligation under the Renewable Fuels Standard ("RFS2").
Lower impact on air quality. Isobutanol has a low RVP. RVP measures a fuel's volatility, and in warm weather, high RVP fuel can contribute to precursors of smog formation. The EPA sets regional and seasonal clean air standards in the U.S., which include RVP limitations, with the potential for stricter air quality regulations in the near future. Given isobutanol's lower RVP relative to ethanol, we believe refiners using isobutanol blends will have more flexibility in their gasoline formulations to meet clean air standards. This added flexibility can be valuable in regions of the U.S. that fail to meet EPA-designated national air quality standards, or in markets like California where the RVP maximum is very low.

Value added specialty applications. Due to isobutanol's high energy content and low water solubility, as well as testing completed by the NMMA, OPEI and BASCO, we believe that isobutanol may have direct applications in high value specialty fuels settings serving marine, small equipment engines and sports vehicle markets.

Competition

Our isobutanol is targeted for use in the following markets: direct use as a solvent and gasoline blendstock, use in the chemicals industry for producing rubber, plastics, fibers, polyester and other polymers and use in the production of hydrocarbon fuels. We face competitors in each market, some of which are limited to individual markets, and some of which will compete with us across all of our target markets.

Renewable isobutanol. We are a leader in the development of renewable isobutanol via fermentation of renewable plant biomass. While the competitive landscape in renewable isobutanol production is limited at this time, we are aware of other companies that are seeking to develop isobutanol production capabilities. These include Butamax Advanced Biofuels LLC ("Butamax"), a joint venture between BP p.l.c. ("BP") and E. I. du Pont de Nemours and Company ("DuPont"). While this entity is a private company, based on our due diligence related to intellectual property filings we believe that we have a favorable competitive position in the development of renewable isobutanol production.

Solvent markets. We also face competition from companies that are focused on the development of n-butanol, a related compound to isobutanol. These companies include Cathay Industrial Biotech Ltd., METabolic EXplorer S.A., Eastman Chemicals Company, Cobalt Technologies, Inc. and Green Biologics Ltd. We understand that these companies produce n-butanol from an acetone-butanol-ethanol ("ABE") fermentation process primarily for the small chemicals markets. ABE fermentation using a Clostridia biocatalyst has been used in industrial settings since 1919. As discussed in several academic papers analyzing the ABE process, such fermentation is handicapped in competitiveness by high energy costs due to low concentrations of butanol produced and significant volumes of water processed. It requires high capital and operating costs to support industrial scale production due to the low rates of the Clostridia fermentation, and results in a lower butanol yield because it produces ethanol and acetone as by-products. We believe our proprietary process has many significant advantages over the ABE process because of its limited requirements for new capital expenditures, its production output of only isobutanol as a primary product and its limited water usage in production. We believe these advantages will produce a lower cost isobutanol compared to n-butanol produced by ABE fermentation. N-butanol's lower octane rating compared to isobutanol gives it a lower value in the gasoline blendstock market, but n-butanol can compete directly in many solvent markets where n-butanol and isobutanol have similar performance characteristics.

Gasoline blendstocks. In the gasoline blendstock market isobutanol competes with non-renewable alkylate and renewable ethanol. We estimate the total potential global market for isobutanol as a gasoline blendstock to be approximately 40 BGPY. Alkylate is a premium value gasoline blendstock typically derived from petroleum. However, petroleum feeds for alkylate manufacture are pressured by continued increases in the use of natural gas to generate olefins for the production of alkylate, due to the low relative cost of natural gas compared to petroleum. Isobutanol has fuel properties similar to alkylate and, as such, we expect that isobutanol could be used as a substitute for some alkylate in fuel applications. Ethanol is renewable and has a high octane rating, and although it has a high RVP, ethanol receives a one pound RVP waiver in a large portion of the U.S. gasoline market. Renewability is important in the U.S. because the RFS2 mandates that a minimum volume of renewable blendstocks be used in gasoline each year. A high octane rating is important for engine performance and is a valuable characteristic because many inexpensive gasoline blendstocks have lower octane ratings. Low RVP is important because the EPA sets maximum permissible RVP levels for gasoline. In markets where low RVP is important, isobutanol can enable refiners to meet fuel specifications at lower cost. Ethanol's vapor pressure waiver is valuable because it offsets much of the negative value of ethanol's high RVP. We believe that our isobutanol will be valued for its combination of low RVP, relatively high octane and renewability.

Many production and technology supply companies are working to develop ethanol production from cellulosic feedstocks, including Shell Oil Company, DuPont-Danisco Cellulosic Ethanol LLC, Abengoa Bioenergy, S.A., POET, LLC, ICM, Mascoma Corporation, Inbicon A/S, INEOS New Planet BioEnergy LLC, Coskata, Inc., Archer Daniels Midland Company, BlueFire Ethanol, Inc., KL Energy Corporation, ZeaChem Inc., Iogen Corporation, Qteros, Inc., AE Biofuels, Inc. and many smaller startup companies. Successful commercialization by some or all of these companies will increase the supply of renewable gasoline blendstocks worldwide, potentially reducing the market size or margins available to isobutanol.

Plastics, fibers, polyester, rubber and other polymers. Isobutanol can be dehydrated to produce butenes, hydrocarbon intermediates currently used in the production of plastics, fibers, polyester, rubber and other polymers. The straightforward conversion of our isobutanol into butenes is a fundamentally important process that enables isobutanol to be used as a building block chemical in multiple markets. These markets include butyl rubber, lubricants and additives derived from butenes such as isobutylene, poly methyl methacrylate from isobutanol, propylene for polypropylene from isobutylene, polyesters made via PX from isobutylene and polystyrene made via styrene.

In these markets, we compete with the renewable isobutanol companies and renewable n-butanol producers described previously, and face similar competitive challenges. Our competitive position versus petroleum-derived plastics, fibers, rubber and other polymers varies, but we believe that the high volatility of petroleum prices, often tight supply markets for petroleum-based petrochemical feedstocks and the desire of many consumers for goods made from more renewable sources will enable us to compete effectively. However, petrochemical companies may develop alternative pathways to produce petrochemical-based hydrocarbon products that may be less expensive than our isobutanol or more readily available or developed in conjunction with major petrochemical, refiner or end user companies. These products may have economic or other advantages over the plastics, fibers, polyester, rubber and other polymers developed from our isobutanol. Further, some of these companies have access to significantly more resources than we do to develop products.

Additionally, Global Bioenergies, S.A. is pursuing the direct production of isobutylene from renewable carbohydrates. Through analysis of the fermentation pathway, we believe that the direct production of butenes such as isobutylene via fermentation will have higher capital and operating costs than production of butenes derived from our isobutanol.

Hydrocarbon fuels. Beyond direct use as a fuel additive, isobutanol can be converted into many hydrocarbon fuels and specialty blendstocks, offering substantial potential for additional demand in the fuels markets. We will compete with the incumbent petroleum-based fuels industry, as well as biofuels companies. The incumbent petroleum-based fuels industry makes the vast majority of the world’s gasoline, jet and diesel fuels and blendstocks. The petroleum-based fuels industry is mature, and includes a substantial base of infrastructure for the production and distribution of petroleum-derived products. However, the industry faces challenges from its dependence on petroleum. High and volatile oil prices will provide an opportunity for renewable producers relying on biobased feedstocks like corn, which in recent years have had lower price volatility than oil, to compete.

Biofuels companies will provide substantial competition in the gasoline market. These biofuels competitors are numerous and include both large established companies and numerous startups. Government tax incentives for renewable fuel producers and regulations such as the RFS2 help provide opportunities for renewable fuels producers to compete. In particular, in the gasoline and gasoline blendstock markets, Virent Energy Systems, Inc. (“Virent”) offers a competitive process for making gasoline and gasoline blendstocks. However, we have the advantage of being able to target conversion of isobutanol into specific high-value molecules such as isooctane, which can be used to make gasoline blendstocks with a higher value than whole gasoline, which we do not believe Virent’s process can match. In the jet fuel market, we may face competition from companies such as Synthetic Genomics, Inc., Solazyme, Inc., Sapphire Energy, Inc. and Exxon-Mobil Corporation, which are pursuing production of jet fuel from algae-based technology. Renewable Energy Group, Inc. and others are also targeting production of jet fuels from renewable biomass. We may also face competition from companies working to produce jet fuel from hydrotreated vegetable oils. In the diesel fuels market, competitors such as Amyris Biotechnologies, Inc. (“Amyris”) provide alternative hydrocarbon diesel fuel. We believe our technology provides a higher yield on feedstock than the isoprenoid fermentation pathway developed by Amyris, which we believe will yield a production cost advantage.

Ethanol. We compete with numerous ethanol producers located throughout the U.S., many of which have much greater resources than we do, including Archer-Daniels-Midland Company, POET, LLC and Valero Energy Corporation. Competition for corn supply from other ethanol plants and other corn consumers will likely exist in all areas and regions in which our current and future plants will operate. We also face competition from foreign producers of ethanol and such competition may increase significantly in the future. Large international companies have developed, or are developing, increased foreign ethanol production capacities. Brazil is the world’s second largest ethanol producing country. Brazil’s ethanol production is sugarcane-based, as opposed to corn-based, and has historically been less expensive to produce.

Intellectual Property

Our success depends in large part on our proprietary products and technology for which we seek protection under patent, copyright, trademark and trade secret laws. Such protection is also maintained in part using confidential disclosure agreements. Protection of our technologies is important so that we may offer our customers and partners proprietary services and products unavailable from our competitors, and so that we may exclude our competitors from using technology that we have developed or exclusively licensed. If competitors in our industry have access to the same technology, our competitive position may be adversely affected. As of December 31, 2014, we exclusively licensed rights to 106 issued patents and filed patent applications in the U.S. and in various foreign jurisdictions. Of the licensed patents and patent applications, most are owned by Cargill and exclusively licensed to us for use in certain fields. These licensed patents and patent applications cover both enabling technologies and products or methods of producing products. Our licenses to such patents allow us to freely practice the licensed inventions, subject only to the terms of these licenses. As of December 31, 2014, we have submitted 409 patent applications in the U.S. and in various foreign jurisdictions. These patent applications are directed to our technologies and specific methods and products that support our business in the biofuel and bioindustrial markets. We continue to file new patent applications, for which terms extend up to 20 years from the filing date in the U.S.

As of December 31, 2014, we have been issued 24 U.S. patents and nine international patents.

We will continue to file and prosecute patent applications and maintain trade secrets, as is consistent with our business plan, in an ongoing effort to protect our intellectual property. It is possible that our licensors' current patents, or patents which we may later acquire or license, may be successfully challenged or invalidated in whole or in part. It is also possible that we may not obtain issued patents from our filed applications, and may not be able to obtain patents regarding other inventions we seek to protect. Under appropriate circumstances, we may sometimes permit certain intellectual property to lapse or go abandoned. Due to uncertainties inherent in prosecuting patent applications, sometimes patent applications are rejected and we may subsequently abandon them. It is also possible that we will develop products or technologies that will not be patentable or that the patents of others will limit or preclude our ability to do business. In addition, any patent issued to us may provide us with little or no competitive advantage, in which case we may abandon such patent or license it to another entity.

We have obtained registered trademarks for Gevo Integrated Fermentation Technology®, GIFT®, and Gevo® in the U.S., and we have a pending U.S. trademark application for iDGs™. These registered and pending U.S. trademarks are also registered or pending in certain foreign countries.

Our means of protecting our proprietary rights may not be adequate and our competitors may independently develop technology or products that are similar to or compete with ours. Patent, trademark and trade secret laws afford only limited protection for our technology platform and products. The laws of many countries do not protect our proprietary rights to as great an extent as do the laws of the U.S. Despite our efforts to protect our proprietary rights, unauthorized parties have in the past attempted, and may in the future attempt, to operate using aspects of our intellectual property or products or to obtain and use information that we regard as proprietary. Third parties may also design around our proprietary rights, which may render our protected technology and products less valuable. In addition, if any of our products or technologies is covered by third-party patents or other intellectual property rights, we could be subject to various legal actions. We cannot assure you that our technology platform and products do not infringe patents held by others or that they will not in the future.

Litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others or to defend against claims of infringement, invalidity, misappropriation or other allegations. Any such litigation could result in substantial costs and diversion of our resources. In particular, over time, the costs of defending the lawsuit filed by Butamax, a joint venture between DuPont and BP, alleging that we have infringed upon patents relating to the production of isobutanol, may become significant (as described further in Part I, Item 3 of this Report). Moreover, any settlement of or adverse judgment resulting from such litigation could require us to obtain a license to continue to make, use or sell the products or technology that is the subject of the claim, or otherwise restrict or prohibit our use of the technology.

Partnerships and Collaborations

ICM, Inc.

We currently have an exclusive alliance with ICM to Retrofit ethanol plants to the production of isobutanol. ICM is a company that focuses on engineering, building and supporting biorefineries for the renewable fuel industry. We believe that our alliance with ICM will provide us with a competitive advantage and allow us to more quickly achieve commercial-scale production of isobutanol. Through our alliance with ICM, we plan to Retrofit existing ethanol plants to expand our production. ICM is well-positioned for this project because they have designed approximately 50% of the current North American operating ethanol production capacity.

Development Agreement. On October 16, 2008, we entered into a development agreement with ICM, which set forth the terms for the development of a one MGPY corn drying ethanol demonstration facility in St. Joseph, Missouri. Working with ICM engineers, we installed GIFT® at the St. Joseph demonstration plant, and successfully produced isobutanol. The development agreement, as amended, may be terminated by either party upon 30 days' written notice.

Commercialization Agreement. We entered into a commercialization agreement with ICM on October 16, 2008, which was amended and restated on August 11, 2011. Under this agreement, as amended and restated, ICM serves as our exclusive engineering contractor for the Retrofit of ethanol plants in North America, and we serve as ICM's exclusive technology partner for the production of butanols, pentanols and propanols from the fermentation of sugars. This commercialization agreement outlines the terms and fees under which ICM will provide engineering and construction services for commercial plants utilizing dry-milled feedstocks of corn or grain sorghum. Pursuant to the commercialization agreement, we will work with ICM on the joint development of commercial plants utilizing our GIFT® system, including the development of engineering designs to Retrofit existing dry-mill ethanol facilities. Due to the fact that some of ICM's proprietary process technology will be included in the plant designs, both parties intend that ICM will be the exclusive engineering services provider for commercial plants. However, in the event that ICM fails to meet commercially reasonable timelines for the engineering of the commercial plants, after a 30-day cure period, we may terminate our exclusivity obligations to ICM. The term of the commercialization agreement is through October 16, 2018. Either party may terminate the commercialization agreement upon 30 days' notice in the event that the other party ceases regular operations, enters or is forced into bankruptcy or receivership, liquidates its assets or breaches the agreement.

In August 2011, we also entered into a work agreement with ICM. Pursuant to the terms of the work agreement, ICM will provide engineering, procurement and construction ("EPC") services for the Retrofit of ethanol plants. Under this work agreement, ICM provided us EPC services for the Retrofit of the Agri-Energy Facility. We expect our alliance with ICM to help us continue to make efficiency and cost-related improvements in Retrofitting plants and producing isobutanol.

Cargill, Incorporated

We have obtained exclusive rights to develop and integrate Cargill's microorganisms into GIFT®. These microorganisms are able to process cellulosic biomass, which we hope will eventually allow low cost production of isobutanol from varied inputs, including purpose grown energy crops (e.g., switchgrass), forest residues (e.g., waste wood, pulp and sustainable wood), agricultural residues (e.g., corn stalks, leaves, straw and grasses) and municipal green waste (e.g., grass clippings and yard waste).

License Agreement. In February 2009, we entered into a license agreement with Cargill. Under the license agreement, Cargill granted us an exclusive, worldwide, royalty-bearing license to certain Cargill patents and biological materials, including specialized microorganisms and tools for modifying those microorganisms to produce specific molecules. We also have an option, with a first right of refusal, to purchase an exclusive license to use such patents and biological materials owned by Cargill to produce additional molecules.

In exchange for the rights granted under the license agreement, we paid Cargill an upfront license fee and have committed to make additional payments to Cargill including, (i) payments based on the achievement of certain milestones, (ii) payments upon the commercialization of product lines which use the Cargill biological materials or are otherwise covered by the patent rights, and (iii) royalty payments. We may terminate the license agreement at any time upon 90 days' written notice and either party may terminate the license agreement for a material breach by the other party that is not cured within 120 days of notification of such breach. Unless terminated earlier, the agreement remains in effect until no licensed patent rights remain under the license agreement.

The Coca-Cola Company

We have established a working relationship with Coca-Cola to create bio-PX from our isobutanol in an effort to accelerate the development of Coca-Cola's second generation PlantBottle™ packaging made from 100% plant-based materials.

Joint Research, Development, License and Commercialization Agreement. In November 2011, we entered into a joint research, development, license and commercialization agreement with Coca-Cola. Pursuant to this agreement, we have agreed to conduct research and development activities, including engineering to produce bio-PX from isobutanol, with the ultimate goal of producing bio-PET for food-grade bottling. Our work is targeted to take the technology from laboratory-scale to commercial-scale and support Coca- Cola's efforts to lead the beverage industry away from fossil-fuel based packaging by offering an alternative made completely from renewable raw materials. Pursuant to the terms of the agreement, Coca-Cola paid us a fixed fee for the research program during the first two years of the agreement. The research and development activities under the initial agreement were successfully completed and an amendment was entered into in March 2014 that extended the agreement through the end of 2014. We are in ongoing discussions with Coca-Cola to determine the next steps of the collaboration to scale-up the bio-PX technology.

Toray Industries, Inc.

In June 2011, we announced that we had successfully produced fully renewable and recyclable PET in cooperation with Toray Industries. Working directly with Toray Industries, we employed prototypes of commercial operations from the petrochemical and refining industries to make PX from isobutanol. Toray Industries used our bio-PX and commercially available renewable mono ethylene glycol to produce fully renewable PET films and fibers.

Joint Development Agreement. In June 2012, we entered into a definitive agreement with Toray Industries, as amended in October 2013, for the joint development of an integrated supply chain for the production of bio-PET. Pursuant to the terms of the agreement with Toray Industries, we received $1.0 million which we used for the design and construction of a demonstration plant. Toray Industries was obligated to purchase initial volumes of bio-PX produced at the demonstration plant. In May 2014, we successfully shipped these initial volumes of bio-PX to Toray Industries.

Other Material Agreements

Redfield Energy, LLC

Joint Venture Agreement. In June 2011, we entered into the Joint Venture Agreement with Redfield and executed the second amended and restated operating agreement of Redfield (together, the “Joint Venture Documents”). Under the terms of the Joint Venture Documents, we have agreed to work with Redfield toward the Retrofit of the Redfield Facility, an approximately 50 MGPY ethanol production facility located near Redfield, South Dakota, for the commercial production of isobutanol. Under the terms of the Joint Venture Agreement, Redfield has issued 100 Class G membership units in Redfield (the “Class G Units”) to our wholly-owned subsidiary, Gevo Development, LLC (“Gevo Development”). Gevo Development is the sole holder of Class G units, which entitle Gevo Development to certain information and governance rights with respect to Redfield, including the right to appoint two members of Redfield’s 11-member board of managers. The Class G units currently carry no interest in the allocation of profits, losses or other distributions of Redfield and no voting rights. Such rights will vest upon the commencement of commercial isobutanol production at the Redfield Facility, at which time we anticipate consolidating Redfield’s operations because we anticipate we will control the activities that are most significant to the entity.

We will be responsible for all costs associated with the Retrofit of the Redfield Facility. Redfield will remain responsible for certain expenses incurred by the facility including certain repair and maintenance expenses and any costs necessary to ensure that the facility is in compliance with applicable environmental laws. We anticipate that the Redfield Facility will continue its current ethanol production activities during much of the Retrofit. Following installation of the Retrofit assets, ethanol production operations will be suspended to enable testing of the isobutanol production capabilities of the facility (the “Performance Testing Phase”). During the Performance Testing Phase, we will be entitled to receive all revenue generated by the Redfield Facility and will make payments to Redfield to cover the costs incurred by Redfield to operate the facility plus the profits, if any, that Redfield would have received if the facility had been producing ethanol during that period (the “Facility Payments”). We have also agreed to maintain an escrow fund during the Performance Testing Phase as security for our obligation to make the Facility Payments.

If certain conditions are met, commercial production of isobutanol at the Redfield Facility will begin upon the earlier of the date upon which certain production targets have been met or the date upon which the parties mutually agree that commercial isobutanol production at the Redfield Facility will be commercially viable at the then-current production rate. At that time, (i) we will have the right to appoint a total of four members of Redfield’s 11-member board of managers, and (ii) the voting and economic interests of the Class G units will vest and Gevo Development, as the sole holder of the Class G Units, will be entitled to a percentage of Redfield’s profits, losses and distributions, to be calculated based upon the demonstrated isobutanol production capabilities of the Redfield Facility.

Gevo Development, or one of its affiliates, will be the exclusive marketer of all products produced by the Redfield Facility once commercial production of isobutanol at the Redfield Facility has begun. Additionally, we will license the technology necessary to produce isobutanol at the Redfield Facility to Redfield, subject to the continuation of the marketing arrangement described above. In the event that the isobutanol production technology fails or Redfield is permanently prohibited from using such technology, we will forfeit the Class G Units and lose the value of our investment in Redfield.

Gevo, Inc. entered into a guaranty effective as of June 2011, pursuant to which it has unconditionally and irrevocably guaranteed the payment by Gevo Development of any and all amounts owed by Gevo Development pursuant to the terms and conditions of the Joint Venture Agreement and certain other agreements that Gevo Development and Redfield expect to enter into in connection with the Retrofit of the Redfield Facility.

As of December 31, 2014, we have incurred $0.4 million in planning-related costs, such as project engineering and permitting costs, for the future Retrofit of the Redfield Facility. Based on estimates from our preliminary engineering process, we will need to raise additional debt or equity capital in order to complete the Retrofit of the Redfield Facility, but are not obligated to do so under the Joint Venture Documents.

Whitebox Senior Secured Debt

In May 2014, we entered into a Term Loan Agreement (the "Loan Agreement") with the lenders party thereto from time to time (each, a "Lender" and collectively, the "Lenders") and Whitebox Advisors, LLC, as administrative agent for the Lenders ("Whitebox"), with a maturity date of March 15, 2017, pursuant to which the Lenders committed to provide one or more senior secured term loans to the Company in an aggregate amount of up to approximately $31.1 million on the terms and conditions set forth in the Loan Agreement (collectively, the "Term Loan"). The first advance of the Term Loan in the amount of $22.8 million (the "First Advance"), net of discounts and issue costs of $1.6 million and $1.5 million, respectively, was made to the Company in May 2014. Also in May 2014, we entered into an Exchange and Purchase Agreement (the "Exchange and Purchase Agreement") with WB Gevo, Ltd. and the other Lenders party thereto from time to time and Whitebox, in its capacity as administrative agent for the Lenders. Pursuant to the terms of the Exchange and Purchase Agreement, the Lenders were given the right, subject to certain conditions, to exchange all or a portion of the outstanding principal amount of the Term Loan for the Company's newly created 10% Convertible Senior Secured Notes due March 2017 (the "2017 Notes" and, together with the 2022 Notes, as defined below, the "Convertible Notes"), which are convertible into shares of the Company's common stock. While outstanding, the Term Loan bore an interest rate equal to 15% per annum, of which 5% was payable in cash and 10% was payable in kind and capitalized and added to the principal amount of the Term Loan.

In June 2014, the Lenders exchanged all $25.9 million of the outstanding principal amount of theTerm Loan provided in the First Advance for 2017 Notes, together with accrued paid-in-kind interest of $0.2 million. The terms of the 2017 Notes are set forth in an indenture by and among the Company, its subsidiaries in their capacity as guarantors, and Wilmington Savings Fund Society, FSB, as trustee (the "2017 Notes Indenture"). The 2017 Notes will mature on March 15, 2017. The 2017 Notes have a conversion price equal to $1.1584 per share or .8633 shares per $1 principal amount of 2017 Notes. Optional prepayment of the 2017 Notes will not be permitted. The 2017 Notes bear interest at a rate equal to 10% per annum, which is payable under certain circumstances, 5% in cash and 5% in kind and capitalized and added to the principal amount of the 2017 Notes (otherwise the full 10% is payable in cash). While the 2017 Notes are outstanding, the Company is required to maintain an interest reserve in an amount equal to 10% of the aggregate outstanding principal amount, to be adjusted on an annual basis.

The 2017 Notes Indenture contains customary affirmative and negative covenants for agreements of this type and events of default, including, restrictions on disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain amounts of additional indebtedness, making investments, acquiring or merging with another entity, and making dividends and other restricted payments, unless we receive the prior approval of the required holders. The 2017 Notes Indenture also contains limitations on the ability of the holder to assign or otherwise transfer its interest in the 2017 Notes. The 2017 Notes are secured by a lien on substantially all of the assets of the Company and is guaranteed by Agri-Energy and Gevo Development (together, the "Guarantor Subsidiaries" or "Guarantors"). On June 6, 2014, in connection with the issuance of the 2017 Notes, we entered into a Pledge and Security Agreement in favor of the collateral trustee. The collateral pledged includes substantially all of the assets of the Company and the Guarantor Subsidiaries, including intellectual property and real property. Agri-Energy has also entered into a mortgage with respect to the real property located in Luverne Minnesota.

The holders of the 2017 Notes may, at any time until the close of business on the business day immediately preceding the maturity date, convert the principal amount of the 2017 Notes, or any portion of such principal amount which is at least $1,000, into shares of the Company's common stock. Upon conversion of the 2017 Notes, we will deliver shares of common stock at an initial conversion rate of .8633 shares of common stock per $1 principal amount of the 2017 Notes (equivalent to an initial conversion price of approximately $1.1584 per share of common stock). Such conversion rate is subject to adjustment in certain circumstances, including in the event that there is a dividend or distribution paid on shares of the common stock or a subdivision, combination or reclassification of the common stock. We also have the right to (i) increase the conversion rate by any amount for a period of at least 20 business days if our board of directors determines that such increase would be in our best interest or (ii) to avoid or diminish any income tax to holders of shares of common stock or rights to purchase shares of common stock in connection with any dividend or distribution. In addition, subject to certain conditions described herein, each holder who exercises its option to voluntarily convert its 2017 Notes will receive a make-whole payment in an amount equal to any unpaid interest that would otherwise have been payable on such 2017 Notes through the maturity date (a "Voluntary Conversion Make-Whole Payment"). Subject to certain limitations, we may pay any Voluntary Conversion Make-Whole Payments either in cash or in shares of common stock, at its election.

We have has the right to require holders of the 2017 Notes to convert all or part of the 2017 Notes into shares of our common stock if the last reported sales price of the common stock over any 10 consecutive trading days equals or exceeds 150% of the applicable conversion price (a "Mandatory Conversion"). Each holder whose 2017 Notes are converted in a Mandatory Conversion will receive a make-whole payment for the converted notes in an amount equal to any unpaid interest that would have otherwise been payable on such 2017 Notes through the maturity date (a "Mandatory Conversion Make-Whole Payment"). Subject to certain limitations, we may pay any Mandatory Conversion Make-Whole Payments either in cash or in shares of common stock, at its election.

If a fundamental change of the Company occurs, the holders of 2017 Notes may require us to repurchase all or a portion of the 2017 Notes at a cash repurchase price equal to 100% of the principal amount of such 2017 Notes, plus accrued and unpaid interest, if any, through, but excluding, the repurchase date, plus a cash make-whole payment for the repurchased 2017 Notes in an amount equal to any unpaid interest that would otherwise have been payable on such convertible 2017 Notes through the maturity date.

In connection with the transactions described above, we also entered into a Registration Rights Agreement, dated May 9, 2014 (the "Registration Rights Agreement"), pursuant to which we filed a registration statement on Form S-3 registering the resale of 17.5 million shares of our common stock which are issuable under the 2017 Notes. This registration statement was declared effective on July 25, 2014. We expect to file additional registration statements on Form S-3 or to amend filings in order to register additional shares of common stock of the Company for sale or resale, as necessary in connection with the 2017 Notes.

On July 31, 2014, we entered into amendments to the 2017 Notes Indenture to, among other things, permit the offering and issuance of warrants and the incurrence of indebtedness by the Company under such warrants.

On January 28, 2015, we entered into further amendments to the 2017 Notes Indenture to, among other things, permit the offering and issuance of additional warrants and the incurrence of indebtedness by the Company under such additional warrants.

On January 29, 2015, we commenced a conversion forbearance period in accordance with the terms of the 2017 Notes during which neither we nor any holder of the 2017 Notes has the right to convert any principal amount of the 2017 Notes into shares of common stock. The conversion forbearance period will terminate when we provide notice to the trustee for the 2017 Notes that we have a sufficient number of authorized and unissued shares of common stock to permit conversion of all of the outstanding 2017 Notes. If, on June 27, 2015, the conversion forbearance period has not been terminated and we have failed to reserve out of our authorized but unissued shares or shares held in treasury, sufficient shares of common stock to provide for the conversion of all of the outstanding 2017 Notes, an event of default under the terms of the 2017 Notes will be triggered. Upon such occurrence, 100% of the principal amount and all accrued and unpaid interest under the 2017 Notes will become immediately due and payable. Any default under the terms of the 2017 Notes could have a material adverse effect on our business, results of operations and financial condition.

TriplePoint Financing

Gevo Loan Agreement. In August 2010, Gevo, Inc. entered into a loan and security agreement (the "Gevo Loan Agreement") with TriplePoint Capital LLC ("TriplePoint"), pursuant to which we borrowed $5.0 million. In July 2012, we used $5.4 million of the proceeds from the July 2012 offering of the 7.5% convertible senior notes due 2022 (the "2022 Notes") to pay in full all amounts outstanding under the Gevo Loan Agreement, including an end-of-term payment equal to 8% of the amount borrowed.

Original Agri-Energy Loan Agreement. In August 2010, Gevo Development borrowed $12.5 million from TriplePoint to finance its acquisition of Agri-Energy. In September 2010, upon completion of the acquisition, the loan and security agreement (the "Original Agri-Energy Loan Agreement") was amended to make Agri-Energy the borrower under the facility. In December 2013, we used $5.1 million of the proceeds from the offering of common stock units that was completed in December 2013 to pay off the remaining $5.1 million in outstanding principal under this loan.

Amended Agri-Energy Loan Agreement. In October 2011, the Original Agri-Energy Loan Agreement was amended and restated (the "Amended Agri-Energy Loan Agreement") to provide Agri-Energy with additional term loan facilities of up to $15.0 million to pay a portion of the costs, expenses, and other amounts associated with the Retrofit of the Agri-Energy Facility to produce isobutanol. The Amended Agri-Energy Loan Agreement includes customary affirmative and negative covenants for agreements of this type and events of default. In October 2011, Agri-Energy borrowed $10.0 million under the additional term loan facilities which matures in October 2015. In January 2012, Agri-Energy borrowed an additional $5.0 million under the additional term loan facilities which matures in December 2015, bringing the total amount borrowed under the additional term loan facilities to $15.0 million. The aggregate amount outstanding under the additional term loan facilities bears interest at a rate equal to 11% and is subject to an end-of-term payment equal to 5.75% of the amount borrowed. At December 31, 2014, we were in compliance with the debt covenants under the Amended Agri-Energy Loan Agreement. As security for its obligations under the Amended Agri-Energy Loan Agreement, Agri-Energy granted TriplePoint a security interest in and lien upon all of its assets. Gevo, Inc. also guaranteed Agri-Energy's obligations under the Amended Agri-Energy Loan Agreement. As additional security, concurrently with the execution of the Amended Agri-Energy Loan Agreement, (i) Gevo Development entered into a limited recourse continuing guaranty in favor of TriplePoint, (ii) Gevo Development entered into an amended and restated limited recourse membership interest pledge agreement in favor of TriplePoint, pursuant to which it pledged the membership interests of Agri-Energy as collateral to secure the obligations under its guaranty and (iii) Gevo, Inc. entered into an amendment to its security agreement with TriplePoint (the “Gevo Security Agreement”), which secured its guarantee of Agri-Energy’s obligations under the Amended Agri-Energy Loan Agreement.

June 2012 Amendments. In June 2012, we entered into (i) an amendment (the “Security Agreement Amendment”) to the Gevo Security Agreement and (ii) an amendment (the “Gevo Loan Amendment”) to the Gevo Loan Agreement. In addition, concurrently with the execution of the Security Agreement Amendment and the Gevo Loan Amendment, Agri-Energy entered into an amendment to the Amended Agri-Energy Loan Agreement. These amendments, among other things: (i) permitted the issuance of the 2022 Notes; (ii) removed Agri-Energy’s and the Company’s options to elect additional interest-only periods upon the achievement of certain milestones; (iii) permitted Agri-Energy to make dividend payments and distributions to the Company for certain defined purposes related to the 2022 Notes; (iv) added as an event of default the payment, repurchase or redemption of the 2022 Notes or of amounts payable in connection therewith other than certain permitted payments related to the 2022 Notes; (v) added a negative covenant whereby we may not incur any indebtedness other than as permitted under the Security Agreement Amendment; and (vi) added a prohibition on making any Coupon Make-Whole Payments (as defined in the Indenture) in cash prior to the payment in full of all remaining outstanding obligations under the Amended Agri-Energy Loan Agreement.

December 2013 Amendments. In December 2013, we entered into additional amendments to certain of our existing agreements with TriplePoint and entered into a new intellectual property assignment agreement in favor of TriplePoint to, among other things:

- permit the issuance of warrants associated with our December 2013 offering of common stock units;
- waive any prepayment premium (but not any end-of-term payment) with respect to the Original Agri-Energy Loan Agreement and the Amended Agri-Energy Loan Agreement;
- expand the events of default to add as an event of default the repurchase of the warrants;
- grant TriplePoint a lien and security interest in all of the intellectual property of the Company;
- re-price the three outstanding warrants to purchase common stock of the Company that are held by TriplePoint, which as of December 31, 2014, are exercisable in the aggregate for 388,411 shares of the Company's common stock, to reflect an exercise price equal to $1.18 per share;
- waive the requirement for Agri-Energy to make principal amortization payments on the Amended Agri-Energy Loan Agreement through December 31, 2014 (the "Restructure Period");
  - raise the interest rates under the Amended Agri-Energy Loan Agreement to 13% during the Restructure Period (provided that such rate will return to 11% following the Restructure Period so long as no event of default under the Amended Agri-Energy Loan Agreement shall be continuing on the last day of the Restructure Period); and
- during the period beginning January 2015, and continuing through and including the final monthly installment due under the Amended Agri-Energy Loan Agreement, adjust the monthly payment due and payable to 50% of the fully amortizing amount of principal and interest otherwise due and payable for such month, applied first to outstanding accrued interest and then to principal, with the remaining 50% portion of such required payments of principal and interest for such month accruing and made due and payable at the time of the final monthly installment.

May 2014 Amendments. In May 2014, we entered into a Consent Under and Third Amendment to Amended and Restated Plain English Growth Capital Loan and Security Agreement and Omnibus Amendment to Loan Documents (the "2014 Amendment") pursuant to which TriplePoint amended its agreements with the Company and its subsidiaries and consented to (i) the execution, delivery, and performance of the Loan Agreement, the Exchange and Purchase Agreement, the Registration Rights Agreement, the 2017 Notes Indenture, the 2017 Notes, and the other documents related thereto (collectively the "Senior Loan Documents"); (ii) the incurrence of the Term Loan with Whitebox and any other indebtedness under the Senior Loan Documents (collectively, the "Senior Indebtedness"); (iii) the consummation of the exchange of the Term Loan for the 2017 Notes; (iv) the offering, issuance and sale of the 2017 Notes to Whitebox and the conversion of any 2017 Notes into the common stock of the Company pursuant to the terms of the 2017 Notes Indenture; (v) the guaranty of the Senior Indebtedness provided by the Guarantors; (vi) the liens granted by each of the Company and the Guarantors to secure the Senior Indebtedness and the other obligations under the Senior Loan Documents; (vii) the consummation of any transactions contemplated by, and the terms of, the Senior Loan Documents by the Company and the Guarantors; and (viii) the payment and performance of any of the obligations under the Senior Loan Documents by the Company and the Guarantors, including the making of dividends and distributions by the Guarantors to the Company for the purpose of enabling the Company to make any payments under the Senior Loan Documents.

The amended loan agreement amortizes over 36 months and bears interest at a rate equal to 9% per annum and matures in May 2017. There were no additional concessions or terms of the agreement which would require recognition of a gain or loss due to this amended agreement. As of December 31, 2014, Agri-Energy has granted TriplePoint a junior security interest in all of its assets as security for its obligations under the Amended Agri-Energy Loan Agreement.

On July 31, 2014, we entered into amendments to the Amended Agri-Energy Loan Agreement and the Gevo Security Agreement to, among other things, permit the offering and issuance of warrants and the incurrence of indebtedness by the Company under such warrants.

On January 28, 2015, we entered into further amendments to the Amended Agri-Energy Loan Agreement and the Gevo Security Agreement to, among other things, permit the offering and issuance of additional warrants and the incurrence of indebtedness by the Company under such additional warrants.

2022 Notes

In July 2012, the Company sold $45.0 million in aggregate principal amount of 2022 Notes, with net proceeds of $40.9 million, after accounting for $2.7 million and $1.4 million of cash discounts and issue costs, respectively. The 2022 Notes bear interest at 7.5% which is to be paid semi-annually in arrears on January 1 and July 1 of each year commencing on January 1, 2013. The 2022 Notes will mature on July 1, 2022, unless earlier repurchased, redeemed or converted.

The 2022 Notes are convertible at an initial conversion rate of 175.6697 shares of Gevo, Inc. common stock per $1,000 principal amount of 2022 Notes, subject to adjustment in certain circumstances as described in the indenture governing the 2022 Notes (the “Indenture”). This is equivalent to an initial conversion price of approximately $5.69 per share of common stock. Holders may convert the 2022 Notes at any time prior to the close of business on the third business day immediately preceding the maturity date of July 1, 2022.

If a holder elects to convert its 2022 Notes prior to July 1, 2017, such holder shall be entitled to receive, in addition to the consideration upon conversion, a Coupon Make-Whole Payment (as defined in the Indenture). The Coupon Make-Whole Payment is equal to the sum of the present values of the semi-annual interest payments that would have been payable on the 2022 Notes that a holder has elected to convert from the last day through which interest was paid up to but excluding July 1, 2017, computed using a discount rate of 2%. The Company may pay any Coupon Make-Whole Payment either in cash or in shares of common stock at its election. If the Company elects to pay in common stock, the stock will be valued at 90% of the average of the daily volume weighted average prices of Gevo Inc.’s common stock for the ten trading days preceding the date of conversion. As of December 31, 2014, certain holders of the Company’s 2022 Notes have elected to convert bonds totaling $18.1 million, reducing the principal balance of the 2022 Notes to $26.9 million. Upon conversion, the 2022 Note holders received 3,179,608 shares of our common stock in payment of converted principal of $18.1 million and, pursuant to the terms of the Indenture, such holders also received 2,957,775 shares of Gevo Inc.’s common stock in settlement of Coupon Make-Whole Payments of $4.9 million.

If a Make-Whole Fundamental Change (as defined in the Indenture) occurs and a holder elects to convert its 2022 Notes prior to July 1, 2017, the applicable conversion rate will increase based upon reference to the table set forth in Schedule A of the Indenture. In no event will the conversion rate increase to more than 202.0202 per $1,000 principal amount of the 2022 Notes.

If a Fundamental Change (as defined in the Indenture) occurs, at any time, then each holder will have the right to require the Company to repurchase all of such holder’s 2022 Notes, or any portion thereof that is an integral multiple of $1,000 principal amount, for cash at a repurchase price of 100% of the principal amount of such 2022 Notes plus any accrued and unpaid interest thereon through, but excluding, the repurchase date. Additionally, on July 1, 2017, each holder will have the right to require the Company to repurchase all of such holder’s 2022 Notes, or any portion thereof that is an integral multiple of $1,000 principal amount, for cash at a repurchase price of 100% of the principal amount of 2022 Notes plus any accrued and unpaid interest thereon through, but excluding, the repurchase date.

The Company has a provisional redemption right (“Provisional Redemption”) to redeem, at the Company’s option, all or any part of the 2022 Notes at a price payable in cash, beginning on July 1, 2015 and prior to July 1, 2017, provided that the Company’s common stock for 20 or more trading days in a period of 30 consecutive trading days ending on the trading day immediately prior to the date of the redemption notice exceeds 150% of the conversion price in effect on such trading day. On or after July 1, 2017, The Company has an optional redemption right (“Optional Redemption”) to redeem, at its option, all or any part of the 2022 Notes at a price payable in cash. The price payable in cash for the Optional Redemption or Provisional Redemption is equal to 100% of the principal amount of 2022 Notes redeemed plus any accrued and unpaid interest thereon through, but excluding, the repurchase date. If there is an Event of Default (as defined in the Indenture) under the 2022 Notes, the holders of not less than 25% in principal amount of Outstanding Notes (as defined in the Indenture) by notice to the Company and the trustee may, and the trustee at the request of such holders shall, declare the principal amount of all the Outstanding Notes and accrued and unpaid interest thereon to be due and payable immediately.

Research and Development

Our strategy depends on continued improvement of our technologies for the production of isobutanol, as well as next generation chemicals and biofuels based on our isobutanol technology. Accordingly, we annually devote significant funds to research and development. The following table shows our research and development costs by function (in thousands).

	Year Ended December 31,		
	2014	2013	2012
Biocatalyst development	$8,493	$10,177	$11,526
Process engineering and operation of pilot and demo plants	3,943	8,239	5,318
Chemistry and applications development	1,684	1,763	2,587
Total Research and Development Expense	$14,120	$20,179	$19,431

During 2014, 2013 and 2012, we recorded revenue from government grants and cooperative agreements in the amounts of $0.8 million, $2.7 million and $2.8 million, respectively, which primarily related to research and development activities performed in our biocatalyst, chemistry, and applications development groups.

Our research and development activities are currently being performed primarily in our corporate headquarters located in Englewood, Colorado and the demonstration plant at the South Hampton facility.

Environmental Compliance Costs

Regulation by governmental authorities in the U.S. and other countries is a significant factor in the development, manufacture and marketing of second-generation biofuels. Our isobutanol and the next generation products isobutanol will be used to produce may require regulatory approval by governmental agencies prior to commercialization. In particular, biofuels are subject to rigorous testing and premarket approval requirements by the EPA's Office of Transportation and Air Quality, and regulatory authorities in other countries. In the U.S., various federal, and, in some cases, state statutes and regulations also govern or impact the manufacturing, safety, storage and use of biofuels. The process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations requires the expenditure of substantial resources. Regulatory approval, if and when obtained for any of the next generation products isobutanol is used to produce, may be limited in scope, which may significantly limit the uses for which our isobutanol and these next generation products may be marketed.

When built at a dry-mill facility, our GIFT® fermentation process creates iDGs™, a potential animal feed component, as a co-product. We have undertaken a self-assessed Generally Regarded As Safe (GRAS) process via third party scientific review to support the sale of our iDGs™ as animal feed. While we believe we can rely on this review, as we update our biocatalysts to increase isobutanol production, for further customer assurance, we also intend to pursue approval upon a completed biocatalyst from the Center for Veterinary Medicine of the U.S. Food and Drug Administration (the "FDA"). Further, the FDA's policies may change and additional government regulations may be enacted that could prevent, delay or require regulatory approval of our co-products. We cannot predict the likelihood, nature or extent of adverse governmental regulations that might arise from future legislative or administrative action, either in the U.S. or abroad.

Our process contains a genetically engineered organism which, when used in an industrial process, is considered a new chemical under the EPA's Toxic Substances Control Act program ("TSCA"). EPA's Biotechnology Program under TSCA requires the submission of certain information of the Office of Pollution Prevention and Toxic Substances (OPPT). Due to the nature of our microorganism we can utilize the TSCA Biotechnology Program Tier I and Tier II exemption criteria at our Luverne, Minnesota manufacturing location. As we expand our business activities, we will pursue the EPA's Microbial Commercial Activity Notice process for future plants. We do not anticipate a material adverse effect on our business or financial condition as a result of our efforts to comply with these requirements. However, the TSCA new chemical submission policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our products. We cannot predict the likelihood, nature or extent of adverse governmental regulations that might arise from future legislative or administrative action, either in the U.S. or abroad.

There are various third-party certification organizations, such as ASTM and Underwriters' Laboratories, Inc. ("UL"), involved in certifying the transportation, dispensing and use of liquid fuel in the U.S. and internationally. In 2013, a specification for fuel grade isobutanol titled ASTM D7862 "Standard Specification for Butanol for Blending with Gasoline for Use as Automotive Spark-Ignition Engine Fuel" was published. In addition, UL has published guidance on the use of isobutanol-gasoline blends in its UL87A fuel dispensers. Voluntary standards development organizations may change and additional requirements may be enacted that could prevent or delay marketing approval of our products. The process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations require the expenditure of substantial resources. We do not anticipate a material adverse effect on our business or financial conditions as a result of our efforts to comply with these requirements, but we cannot predict the likelihood, nature or extent of adverse third-party requirements that might arise from future action, either in the U.S. or abroad.

We are subject to various federal, state and local environmental laws and regulations, including those relating to the discharge of materials into the air, water and ground, the generation, storage, handling, use, transportation and disposal of hazardous materials and the health and safety of our employees. These laws and regulations require us to obtain environmental permits and comply with numerous environmental restrictions as we construct and operate isobutanol assets. They may require expensive pollution control equipment or operation changes to limit actual or potential impacts to the environment. A violation of these laws, regulations or permit conditions can result in substantial fines, natural resource damage, criminal sanctions, permit revocations and facility shutdowns.

There is a risk of liability for the investigation and cleanup of environmental contamination at each of the properties that we own or operate and at off-site locations where we arrange for the disposal of hazardous substances. If these substances are or have been disposed of or released at sites that undergo investigation or remediation by regulatory agencies, we may be responsible under the Comprehensive Environmental Response, Compensation and Liability Act or other environmental laws for all or part of the costs of investigation and remediation. We may also be subject to related claims by private parties alleging property damage and personal injury due to exposure to hazardous or other materials at or from the properties. Some of these matters may require us to expend significant amounts for investigation and cleanup or other costs. We are not aware of any material environmental liabilities relating to contamination at or from our facilities or at off-site locations where we have transported or arranged for the disposal of hazardous substances.

In addition, new laws, new interpretations of existing laws, increased governmental enforcement of environmental laws or other developments could require us to make significant additional expenditures. Continued government and public emphasis on environmental issues can be expected to result in increased future investments in environmental controls at our facilities which cannot be estimated at this time. Present and future environmental laws and regulations applicable to our operations, more vigorous enforcement policies and discovery of currently unknown conditions could all require us to make substantial expenditures. For example, our air emissions are subject to the Clean Air Act, the Clean Air Act Amendments of 1990 and similar state and local laws and associated regulations. Under the Clean Air Act, the EPA has promulgated National Emissions Standards for Hazardous Air Pollutants ("NESHAP"), which could apply to facilities that we own or operate if the emissions of hazardous air pollutants exceed certain thresholds. If a facility we operate is authorized to emit hazardous air pollutants above the threshold level, then we might still be required to come into compliance with another NESHAP at some future time. New or expanded facilities might be required to comply with both standards upon startup if they exceed the hazardous air pollutant threshold. In addition to costs for achieving and maintaining compliance with these laws, more stringent standards may also limit our operating flexibility.

As a condition to granting the permits necessary for operating our facilities, regulators could make demands that increase our construction and operations costs, which might force us to obtain additional financing. For example, unanticipated water discharge limits could sharply increase construction costs for our projects. Permit conditions could also restrict or limit the extent of our operations. We cannot guarantee that we will be able to obtain or comply with the terms of all necessary permits to complete the Retrofit of an ethanol plant. Failure to obtain and comply with all applicable permits and licenses could halt our construction and could subject us to future claims.

Employees

As of December 31, 2014, Gevo, Inc. and its subsidiaries employed 97 employees, 57 of whom were employed by Gevo, Inc. and were located in Englewood, Colorado. Of the Gevo, Inc. employees, 40 were engaged in research and development activities and 17 were engaged in general, administrative and business development activities. As of December 31, 2014, our subsidiary Agri-Energy employed 40 employees, all of whom were located in Luverne, Minnesota, and involved in the operations of our production facility. None of our employees are represented by a labor union, and we consider our employee relations to be good.

Segments and Geographic Information

We have determined that we have two operating segments: (i) the Gevo, Inc. segment; and (ii) the Gevo Development/Agri-Energy segment. We organize our business segments based on the nature of the products and services offered through each of our consolidated legal entities. Transactions between segments are eliminated in consolidation.. For additional financial information related to our segments, see Note 19 to our consolidated financial statements.

Gevo, Inc. Segment. Our Gevo, Inc. segment is responsible for all research and development activities related to the future production of isobutanol, including the development of our proprietary biocatalysts, the production and sale of biojet fuel, our Retrofit process and the next generation of chemicals and biofuels that will be based on our isobutanol technology. Our Gevo, Inc. segment also develops, maintains and protects our intellectual property portfolio, develops future markets for our isobutanol and provides corporate oversight services.

Gevo Development/Agri-Energy Segment. Our Gevo Development/Agri-Energy segment is currently responsible for the operation of our Agri-Energy Facility and the production of ethanol, isobutanol and related products. Substantially all of the ethanol produced from the date of the acquisition of the Agri-Energy Facility through December 31, 2014 was sold through an ethanol marketing company. Sales of ethanol and related products from our Gevo Development/Agri-Energy segment comprised approximately 83% of our consolidated revenue for the fiscal year ended December 31, 2014.

The following table sets forth our revenue by reportable segment (in thousands).

	Year Ended December 31,		
	2014	2013	2012
Revenues:			
Gevo	$4,718	$4,822	$3,505
Gevo Development / Agri-Energy	23,548	3,402	20,880
Consolidated	$28,266	$8,224	$24,385

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Geographic Information. For both the Gevo, Inc. segment and the Gevo Development/Agri-Energy segments, all revenue is earned and all assets are held in the U.S.

Executive Officers and Directors of the Registrant

The following table sets forth certain information about our executive officers and directors.

Name	Age	Position(s)
Patrick R. Gruber, Ph.D.	54	Chief Executive Officer and Director
Christopher Ryan, Ph.D.	53	President, Chief Operating Officer and Chief Technology Officer
Mike Willis	44	Chief Financial Officer and Executive Vice President of Corporate Development & Strategy
Greg Roda	54	Chief Commercial Officer
Brett Lund, J.D., M.B.A.	39	Chief Legal Officer and Secretary
Shai Weiss(1)(2)	46	Chairman of the Board of Directors
Andy Marsh (2)(3)	59	Director
Ruth I. Dreessen(2)(3)	59	Director
Ganesh M. Kishore, Ph.D.(1)	61	Director
Gary W. Mize(1)(2)(3)	64	Director

(1) Member of the compensation committee.
(2) Member of the nominating and corporate governance committee.
(3) Member of the audit committee.

Patrick R. Gruber, Ph.D. has served as Chief Executive Officer and a director of the Company since 2007. Prior to joining the Company, from 2005 to 2007 Dr. Gruber was President and Chief Executive Officer of Outlast Technologies, Inc. (“Outlast Technologies”), a technology and marketing company primarily serving the textile industry, where he was responsible for all aspects of Outlast Technologies’ business. Previously, Dr. Gruber co-founded NatureWorks LLC (formerly Cargill Dow, LLC) (“NatureWorks”) and served as Vice President, Technology and Operations, and Chief Technology Officer from 1997 to 2005, where he was responsible for all aspects of the business’ project, application and process technology development. Dr. Gruber is a member of the Bioenergy Technical Advisory Committee for the Energy Future Coalition. From 2007 to May 2012, Dr. Gruber served on the board of directors of Segetis, Inc. From 2007 to January 2012, Dr. Gruber served on the board of directors of Green Harvest Technologies, LLC and from 2007 to 2008, he served on the board of directors of Outlast Technologies. In 2011, Dr. Gruber was awarded the University of Minnesota Outstanding Achievement Award. In 2008, Dr. Gruber was awarded the first ever George Washington Carver Award, recognizing significant contributions by individuals in the field of industrial biotechnology and its application in biological engineering, environmental science, biorefining and biobased products. Dr. Gruber holds a Ph.D. in chemistry from the University of Minnesota, an M.B.A. from the University of Minnesota and a B.S. in chemistry and biology from the University of St. Thomas. We believe Dr. Gruber’s qualifications to sit on our board of directors include his experience as a Chief Executive Officer and business leader and his extensive experience developing and commercializing industrial biotechnology products.

Christopher Ryan, Ph.D. has served as President and Chief Operating Officer of the Company since June 2011 and as Chief Technology Officer of the Company since September 2012, having previously served the Company as its Executive Vice President, Business Development since June 2009. Prior to joining the Company, he co-founded

NatureWorks in 1997. Dr. Ryan served as Chief Operating Officer for NatureWorks from 2008 to 2009 and Chief Technology Officer for NatureWorks from 2005 to 2008, where he was involved in the development and commercialization of that company's new biobased polymer from lab-scale production in 1992 through the completion of a $300 million world-scale production facility. Prior to 1992, Dr. Ryan served for four years in Corporate R&D for specialty chemical company HB Fuller Company. He has over 20 years of experience in strategic leadership, business development and research and product development in biobased materials. Dr. Ryan holds a Ph.D. in organic chemistry from the University of Minnesota, a B.S. in chemistry from Gustavus Adolphus College and completed the Management of Technology program at the University of Minnesota.

Mike Willis has served as the Company's Executive Vice President of Corporate Development and Strategy since December 2012, as Interim Chief Financial Officer from September 2013 to April 2014, and as Chief Financial Officer since April 2014. Prior to joining the Company, Mr. Willis spent over seven years working with the Virgin Group, most recently serving as a Principal with Virgin Green Fund, a private equity firm focused on the renewable energy and resource efficiency sectors. Mr. Willis was involved in the fund's investment activities, including its investment in the Company, and worked in operational roles with some of the fund's portfolio companies, including serving as acting Chief Financial Officer of DuraTherm, Inc. Virgin Green Fund is an "affiliate" of the Company as defined in Rule 405 of the Securities Act of 1933, as amended. Previously, Mr. Willis worked with Virgin Management Limited in London in corporate development assisting several of the Virgin Group's portfolio businesses internationally with strategy and corporate finance transactions. Mr. Willis has also worked in private equity and investment banking in the U.S. and Canada, focusing on mid-market transactions in a variety of sectors including technology, consumer products and retail. Mr. Willis is currently on the board of directors of Wildcat Discovery Technologies. Mr. Willis holds an M.B.A. from INSEAD in France and a Bachelors of Commerce from Queen's University in Canada.

Greg Roda has served as the Company's Chief Commercial Officer since September 2013. Mr. Roda has more than 17 years of strategic leadership, business development, research and product development experience in bio-based materials. From 2007 to 2012, Mr. Roda served as Chief Executive Officer of Outlast Technologies, Inc., a privately funded technology company that develops, licenses and markets phase change materials for use in temperature regulating fabrics, packaging and industrial materials. Prior to Outlast Technologies, Mr. Roda worked with Natureworks as a Business Development Executive overseeing commercialization of polylactic acid in the fiber and textile industry. In this role he was responsible for building a global supply chain, creating market pull-through with downstream customers, and negotiating contracts to align the interests of Natureworks and its partners. He also led a team in developing the business strategy for Natureworks. From 1996 to 2002, he worked with Cargill's Strategy and Business Development Group spending four years in Singapore with a focus on building Cargill's palm oil plantation business through acquisitions and strategic partnerships. Mr. Roda holds a B.S. in mechanical engineering from the University of Michigan and an M.B.A. with a concentration in international business and finance from the University of Chicago.

Brett Lund, J.D., M.B.A. has served as General Counsel and Secretary of the Company since November 2007 and as Chief Legal Officer since November 2014. In 2013, Mr. Lund was named "Forty Under 40" by the Denver Business Journal for being one of top forty business leaders under age 40. In 2012, Mr. Lund was named one of the "Most Influential Young Professionals" in Colorado by ColoradoBiz Magazine and also in 2012, Mr. Lund was named "Best Corporate Counsel" by the Denver Business Journal. Before joining the Company, from 2004 to 2007, he served as Chairman of the legal, intellectual property and licensing group and biotechnology licensing manager for the biofuels business of Syngenta Biotechnology, Inc. ("Syngenta"). At Syngenta, Mr. Lund led the management of intellectual property, in-licensing, out-licensing, research collaborations and strategic alliances. In 2006, Mr. Lund was Chief Executive Officer and a member of the board of Agarigen, Inc. ("Ararigen") where he developed a novel protein expression platform for biologic pharmaceuticals, vaccines, and commercial enzymes. At Agarigen, Mr. Lund worked on a multi-million dollar research program for the Defense Advanced Research Projects Agency (DARPA) and later led the sale of Agarigen to Intrexon, Inc. (NYSE: XON). Prior to Agarigen, he served as Associate General Counsel for Ford Motor Company, Inc.'s Wingcast subsidiary. Mr. Lund was previously a corporate attorney at the law firm of Cooley LLP, where he represented numerous companies regarding intellectual property licensing, initial public offerings, venture capital financing, mergers and acquisitions, securities, strategic alliances and related transactions. Mr. Lund holds a J.D. from Duke Law School, an M.B.A. from Duke University's Fuqua School of Business and a B.A. in political science from the University of California, San Diego. He is a Certified Licensing Professional by the Licensing Executives Society and admitted to practice law in California and North Carolina.

Shai Weiss has served as a director of the Company since 2007 and was appointed chairman of our board of directors in September 2010. Since 2014, Mr. Weiss has served as Chief Financial Officer of Virgin Atlantic Limited and has served as a member of its board of directors since 2012. From 2012 to 2014, Mr. Weiss served as a Partner with the Virgin Group. Mr. Weiss previously led the formation of Virgin Green Fund I, L.P. ("Virgin Green Fund"), where he has been a partner since 2007. Prior to forming Virgin Green Fund, he held several management positions at ntl:Telewest (now Virgin Media, Inc.), including Managing Director of Consumer Products from 2004 to 2006, Integration Director for the merger between ntl, Inc. and Telewest Global, Inc. from 2005 to 2006, Director of Operations for the ntl Group from 2003 to 2004 and Director of Financial Planning for the Consumer division from 2002 to 2003. In his work as Managing Director of Consumer Products, Mr. Weiss was responsible for the development of internet, telephone and television for the consumer division and the Virgin.net broadband internet service provider. As director of operations for the ntl Group, he was responsible for major operational and business development projects, joint ventures and development of relationships with strategic partners. Prior to joining ntl:Telewest, Mr. Weiss organized the European office of the early-stage technology venture fund Jerusalem Venture Partners, L.P. in 2000, and was an associate with Morgan Stanley’s hi-tech mergers and acquisitions and corporate finance teams from 1997 to 2000. Mr. Weiss holds an M.B.A. from Columbia University and a B.B.A. from City University of New York, Baruch College in business and finance. We believe Mr. Weiss’s qualifications to sit on our board of directors include his extensive experience as a business leader and venture capitalist and his experience in advising growth-focused companies with respect to strategic direction and business transactions.

Andy Marsh has served as a director of the Company since February 2015. Since April 2008, Mr. Marsh has served as President and CEO of Plug Power, an alternative energy technology provider engaged in the design, development, manufacture, and commercialization of fuel cell systems for the industrial off-road markets worldwide. Previously, Mr. Marsh was a co-founder of Valere Power (‘Valere”), where he served as CEO and a board member from Valere’s inception in 2001 through its sale to Eltek ASA in 2007. Prior to founding Valere, Mr. Marsh spent almost 18 years with Lucent Bell Laboratories in a variety of sales and technical management positions. Mr. Marsh is a member of the board of directors for the California Hydrogen Business Council, a non-profit group comprised of organizations and individuals involved in the business of hydrogen. Mr. Marsh holds a BSEET from Temple University, an MSEE from Duke University and an M.B.A. from Southern Methodist University. We believe Mr. Marsh’s qualifications to sit on our board of directors include his years of experience as an executive in the alternative energy industry.

Ruth I. Dreessen has served as a director of the Company since March 2012. Ms. Dreessen has also been a director of Targa Resources Partners LP since February 2013. Since October 2010, Ms. Dreessen has served as Managing Director of Lion Chemical Partners, LLC, a private equity firm focused on building a portfolio of companies operating primarily in the chemical and chemical-related industries. Ms. Dreessen previously served on the board of Better Minerals & Aggregates Corporation (USS Holdings, Inc.) from 1996 to 2007. From 2005 to 2010, Ms. Dreessen served as Executive Vice President and Chief Financial Officer of TPC Group, Inc., a leading producer of value-added products derived from niche petrochemical raw materials such as C4 hydrocarbons. From 2003 to 2005, Ms. Dreessen served as Senior Vice President, Chief Financial Officer and director (2004-2005) of Westlake Chemical Corporation. Prior to joining Westlake Chemical Corporation, Ms. Dreessen served JPMorgan Chase & Co. (formerly Chase Manhattan Corporation) in several executive positions, most recently as Managing Director, Global Chemicals Group, in Houston, Texas, where she focused on leveraged and private equity transactions in chemicals and related industries. Ms. Dreessen holds an M.S. in International Affairs from Columbia University and a B.A. in European History from New College of Florida. We believe Ms. Dreessen's qualifications to sit on our board of directors include her years of experience as an executive in the chemicals industry and her experience serving on other public company boards.

Ganesh M. Kishore, Ph.D. has served as a director of the Company since 2008. Since 2011, Dr. Kishore has also served as a director of Evolva Holding SA and as a director of Kaiima, where he currently serves as chairman of the scientific advisory board. He has also served as a director of Glori Energy since 2009, where he serves as chairman of the nominations and governance committee and as a member of the compensation committee, and a director of Sentinext since 2013, where he serves as chairman of the board of directors and as a member of the compensation committee. He also serves on the board of directors of Sri Tissue Engineering Private Limited. Between 2002 and 2007, he served as a director of Embrex, Inc., serving as a member of the compensation committee and nominations committee during that time. Since October 2014, he has served as Managing Partner of Spruce Capital Management LLC, a manager of MLS Capital Fund II, a fund which invests in a diversified portfolio of biogreentech companies at all stages of development. Since April 2007, he has also served as Chief Executive Officer of Malaysian Life Sciences Capital Fund, where he oversees fund management, investment portfolio management and governance of companies in which Malaysian Life Sciences Capital Fund has made investments. Since January 2009, he has also served as President and Chief Executive Officer of K Life Sciences, LLC where he provides advisory services to life science businesses. Between April 2007 and December 2008, Dr. Kishore served as a Managing Director of Burrill & Company, where his responsibilities included fund management, fund raising and governance of companies in which Burrill & Company invested. Prior to joining Burrill & Company, Dr. Kishore served as Chief Biotechnology Officer at DuPont from 2005 to 2007, where he was responsible for overall biotechnology leadership for DuPont's life science businesses. Previously, he was Vice President, Technology, and Chief Technology Officer for DuPont's Agriculture and Nutrition Division from 2002 to 2005. In his time at DuPont, Dr. Kishore focused on research and development related to biotechnology. Before joining DuPont, Dr. Kishore held several positions between 1980 and 2000 at Monsanto Company ("Monsanto"), including Co-President, Nutrition and Consumer Sector, and Assistant Chief Scientist/Chief Biotechnologist. His contributions include the discovery, development and commercialization of agricultural biotechnology products such as ROUNDUP READY SOY, the development of a manufacturing process for Nutrasweet® and aiding in transforming Monsanto into a leading food and nutrition company. Dr. Kishore co-founded the plant biotechnology and informatics company Metahelix Life Sciences Pvt Ltd. in India, Mogene LC in St. Louis, Missouri and Abunda in San Francisco, California. He serves or has served on the boards of numerous nonprofit institutions, including the School of Nutrition and Policy at Tufts University, the St. Louis RCGA and the National Research Advisory Board of Washington University at St. Louis. He is also a member of the American Association for the Advancement of Science. Dr. Kishore holds a Ph.D. in biochemistry from the Indian Institute of Science, an M.S. in biochemistry from the University of Mysore and a B.S. in physics and chemistry from the University of Mysore. We believe Dr. Kishore's qualifications to sit on our board of directors include his years of experience as an executive in the field of agricultural biotechnology and his experience in advising and managing startup companies.

Gary W. Mize has served as a director of the Company since September 2011. Since October 2009, Mr. Mize has held the position of partner and owner at MR & Associates. Mr. Mize served as President of Rawhide Energy LLC, an ethanol company, from April 2007 to April 2009. Mr. Mize also served as non-executive Chairman at Ceres Global AG, a Canadian public company that serves as a vehicle for agribusiness investments, from December 2007 to April 2010, and has served as an independent director of Ceres Global AG and a member of its audit committee since October 2013. Mr. Mize has also served Noble Group, Hong Kong, as Global Chief Operating Officer and Executive Director from July 2003 to December 2005 and as Non-Executive Director from December 2005 to December 2006. Previously, he was President of the Grain Processing Group at ConAgra Foods, Inc., President and Chief Executive Officer of ConAgra Malt and held various positions at Cargill. Mr. Mize holds a B.A. in Business and Marketing from Michigan State University. Mr. Mize brings international business experience to the board having previously held expatriate positions in Switzerland, Brazil and Hong Kong.

Corporate Information

We were incorporated in Delaware in June 2005 as a corporation under the name Methanotech, Inc. and filed an amendment to our certificate of incorporation changing our name to Gevo, Inc. on March 29, 2006. Our principal executive offices are located at 345 Inverness Drive South, Building C, Suite 310, Englewood, CO 80112, and our telephone number is (303) 858-8358.

Website Access to SEC Filings

We are subject to the reporting requirements under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Consequently, we are required to file reports and information with the SEC, including reports on the following forms: annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. These reports and other information concerning us may be accessed through the SEC's website at http://www.sec.gov and on our website at www.gevo.com. Such filings are placed on our website as soon as reasonably practical after they are filed with the SEC. Any information contained in, or that can be accessed through our website, is not incorporated by reference into, nor is it in any way part of, this Report.

Item 1A. Risk Factors

You should carefully consider the risks described below before investing in our publicly-traded securities. The risks described below are not the only ones facing us. Our business is also subject to the risks that affect many other companies, such as competition, technological obsolescence, labor relations, general economic conditions, geopolitical changes and international operations. Additional risks not currently known to us or that we currently believe are immaterial also may impair our business operations and our liquidity. The risks described below could cause our actual results to differ materially from those contained in the forward-looking statements we have made in this Report, the information incorporated herein by reference and those forward-looking statements we may make from time to time.

Certain Risks Relating to our Business and Strategy

Our auditors have expressed substantial doubt about our ability to continue as a going concern, which may hinder our ability to obtain further financing.

Our audited financial statements for the year ended December 31, 2014, were prepared under the assumption that we would continue our operations as a going concern. Our independent registered public accounting firm has included a "going concern" explanatory paragraph in its report on our financial statements for the year ended December 31, 2014, indicating that the amount of working capital at December 31, 2014 was not sufficient to meet the cash requirements to fund planned operations through December 31, 2015 without additional sources of cash, which raises substantial doubt about our ability to continue as a going concern. Uncertainty concerning our ability to continue as a going concern may hinder our ability to obtain future financing. Continued operations and our ability to continue as a going concern are dependent on our ability to obtain additional funding in the near future and thereafter, and there are no assurances that such funding will be available to us at all or will be available in sufficient amounts or on reasonable terms. Our financial statements do not include any adjustments that may result from the outcome of this uncertainty. Without additional funds from private and/or public offerings of debt or equity securities, sales of assets, sales or outlicenses of intellectual property or technologies, or other transactions, we will exhaust our resources and will be unable to continue operations. If we cannot continue as a viable entity, our stockholders would likely lose most or all of their investment in us.

We have a history of net losses, and we may not achieve or maintain profitability.

We have incurred net losses since our inception, including losses of $41.1 million, $66.8 million and $60.7 million during the years ended December 31, 2014, 2013 and 2012, respectively. As of December 31, 2014, we had an accumulated deficit of $303.3 million. We expect to incur losses and negative cash flow from operating activities for the foreseeable future. Prior to September 2010, our revenues were primarily derived from government grants and cooperative agreements. From the completion of our acquisition of Agri-Energy in September 2010 until the commencement of our initial startup operations for isobutanol production in May 2012, we had also generated revenue from the sale of ethanol and related products. We currently derive revenue from the sale of isobutanol, ethanol and related at the Agri-Energy Facility, although over certain periods of time, we may and have operated the plant for the sole production of ethanol and related products to maximize cash flows. Additionally, we have generated limited revenue from the sale of products such as ATJ fuel produced from isobutanol that has been used for engine qualification and flight demonstration by the U.S. Air Force and other branches of the U.S. military. If our existing grants and cooperative agreements are canceled prior to the expected end dates or we are unable to obtain new grants and cooperative agreements or our ATJ supply contracts are canceled or we are unable to produce suitable ATJ material, our revenues could be adversely affected.

Furthermore, we expect to spend significant amounts on the further development and commercial implementation of our technology. We also expect to spend significant amounts acquiring and deploying additional equipment to attain final product specifications that may be required by future customers, acquiring or otherwise gaining access to additional ethanol plants and Retrofitting them for isobutanol production, on marketing, general and administrative expenses associated with our planned growth and on management of operations as a public company. In addition, the cost of preparing, filing, prosecuting, maintaining and enforcing patent, trademark and other intellectual property rights and defending ourselves against claims by others that we may be violating their intellectual property rights may be significant.

In particular, over time, the costs of our litigation with Butamax have been and are expected to continue to be significant. Furthermore, over time, costs related to defending the validity of our issued patents and challenging the validity of the patents of others at the U.S. Patent and Trademark Office ("USPTO") have also been and may continue to be significant. As a result, even if our revenues increase substantially, we expect that our expenses will exceed revenues for the foreseeable future. We do not expect to achieve profitability during the foreseeable future, and may never achieve it. If we fail to achieve profitability, or if the time required to achieve profitability is longer than we anticipate, we may not be able to continue our business. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

We will require substantial additional financing to achieve our goals, and a failure to obtain this capital when needed or on acceptable terms could force us to delay, limit, reduce or terminate our development and commercialization efforts.

Significant portions of our resources have been dedicated to research and development, as well as demonstrating the effectiveness of our technology, including through the Retrofit of the Agri-Energy Facility. We believe that we will continue to expend substantial resources for the foreseeable future on further developing our technologies, developing future markets for our isobutanol and accessing and Retrofitting facilities necessary for the production of isobutanol on a commercial scale. These expenditures will include costs associated with research and development, accessing existing ethanol plants, Retrofitting or otherwise modifying the plants to produce isobutanol, obtaining government and regulatory approvals, acquiring or constructing storage facilities and negotiating supply agreements for the isobutanol we produce. In addition, other unanticipated costs may arise. Because the costs of developing our technology at a commercial scale are highly uncertain, we cannot reasonably estimate the amounts necessary to successfully commercialize our production.

To date, we have funded our operations primarily through equity offerings, issuances of debt, borrowing under our secured debt financing arrangements and revenues earned primarily from the sale of ethanol. Based on our current plans and expectations, we will require additional funding to achieve our goals. In addition, the cost of preparing, filing, prosecuting, maintaining and enforcing patent, trademark and other intellectual property rights and defending against claims by others that we may be violating their intellectual property rights, including the current litigation with Butamax, will continue to be significant. Moreover, our plans and expectations may change as a result of factors currently unknown to us, and we may need additional funds sooner than planned and may seek to raise additional funds through public or private debt or equity financings in the near future. We may also choose to seek additional capital sooner than required due to favorable market conditions or strategic considerations.

Our future capital requirements will depend on many factors, including:

- the timing of, and costs involved in developing and optimizing our technologies for full-scale commercial production of isobutanol;
- the timing of, and costs involved in accessing existing ethanol plants;
- the timing of, and costs involved in Retrofitting the plants we access with our technologies;
- the costs involved in establishing enhanced yeast seed trains;
- the costs involved in acquiring and deploying additional equipment to attain final product specifications that may be required by future customers;
- the cost of operating, maintaining and increasing production capacity of the Retrofitted plants;
- our ability to negotiate agreements supplying suitable biomass to our plants, and the timing and terms of those agreements;
- the timing of, and the costs involved in developing adequate storage facilities for the isobutanol we produce;
- our ability to gain market acceptance for isobutanol as a specialty chemical, gasoline blendstock and as a raw material for the production of hydrocarbons;

our ability to negotiate supply agreements for the isobutanol we produce, and the timing and terms of those agreements, including terms related to sales price;

our ability to negotiate sales of our isobutanol for full-scale production of butenes and other industrially useful chemicals and fuels, and the timing and terms of those sales, including terms related to sales price;

our ability to sell the iDGs™ left as a co-product of fermenting isobutanol from corn as animal feedstock;

our ability to establish and maintain strategic partnerships, licensing or other arrangements and the timing and terms of those arrangements; and

the cost of preparing, filing, prosecuting, maintaining, defending and enforcing patent, trademark and other intellectual property claims, including litigation costs and the outcome of such litigation.

Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. In addition, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint. If needed funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate:

- our research and development activities;
- our plans to access and/or Retrofit existing ethanol facilities;
- our production of isobutanol at Retrofitted plants; and/or
- our activities in developing storage capacity and negotiating supply agreements that may be necessary for the commercialization of our isobutanol production.

Our ability to compete may be adversely affected if we are unsuccessful in defending against any claims by competitors or others that we are infringing upon their intellectual property rights, such as if Butamax is successful in its lawsuits alleging that we are infringing its patents for the production of isobutanol using certain microbial host cells.

The various bioindustrial markets in which we plan to operate are subject to frequent and extensive litigation regarding patents and other intellectual property rights. In addition, many companies in intellectual property-dependent industries, including the renewable energy industry, have employed intellectual property litigation as a means to gain an advantage over their competitors. As a result, we may be required to defend against claims of intellectual property infringement that may be asserted by our competitors against us and, if the outcome of any such litigation is adverse to us, it may affect our ability to compete effectively. Currently, we are defending against lawsuits filed by Butamax alleging that we have infringed eight patents, including five patents claiming certain recombinant microbial host cells that produce isobutanol and methods for the production of isobutanol using such host cells, a patent claiming a modified Pseudomonas KARI enzyme, a patent claiming a modified E. coli KARI enzyme, and a patent claiming the use of L. lactis and S. mutans -related dihydroxy acid dehydratase enzymes in yeast. The litigation with Butamax is dynamic and the next Delaware District Court trial for the Butamax litigation is currently scheduled for August 24, 2015 and an additional trial is scheduled for April 25, 2016. We expect to incur significant costs preparing for and participating in these upcoming trials. However, if we are unable to raise the significant funds that will be required to continue to defend our freedom to operate, we could be forced to change our business strategy.

Our involvement in litigation, interferences, opposition proceedings or other intellectual property proceedings inside and outside of the U.S. may divert management time from focusing on business operations, could cause us to spend significant amounts of money and may have no guarantee of success. Any current and future intellectual property litigation could also force us to do one or more of the following:

stop selling, incorporating, manufacturing or using our products that use the subject intellectual property;
obtain from a third party asserting its intellectual property rights, a license to sell or use the relevant technology, which license may not be available on reasonable terms, or at all;
redesign those products or processes, such as our process for producing isobutanol, that use any allegedly infringing or misappropriated technology, which may result in significant cost or delay to us, or which redesign could be technically infeasible;
pay attorneys' fees and expenses; or
pay damages, including the possibility of treble damages in a patent case if a court finds us to have willfully infringed certain intellectual property rights.

We are aware of a significant number of patents and patent applications relating to aspects of our technologies filed by, and issued to, third parties, including, but not limited to Butamax. We cannot assure you that we will ultimately prevail if any of this third-party intellectual property is asserted against us or that we will ultimately prevail in the patent infringement litigation with Butamax.

Our Retrofit of the Agri-Energy Facility is our first commercial Retrofit and, as a result, our full-scale commercial production of isobutanol at the Agri-Energy Facility could be delayed or we could experience significant cost overruns in comparison to our current estimates.

In September 2010, we acquired ownership of the Agri-Energy Facility in Luverne, Minnesota. To date, we have successfully demonstrated fermentation operations at commercial scale combined with the use of our GIFT ® separation system using corn mash feedstock at the Agri-Energy Facility. We may incur additional costs in order to further optimize the production of both isobutanol and ethanol simultaneously at the Agri-Energy Facility. Such funds may not be available when we need them on terms that are acceptable to us, or at all. In addition, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint. If additional funding is not available to us, or not available on terms acceptable to us, our ability to optimize the isobutanol production technology currently in place at the Agri-Energy Facility and achieve full-scale commercial production at this facility may be limited. Such a result could reduce the scope of our business plan and have an adverse effect on our results of operations.

The Agri-Energy Facility is our first commercial isobutanol production facility, and, as such, we may be unable to produce planned quantities of isobutanol and any such production may be more costly than we anticipate.

Since commencing initial startup operations for the production of isobutanol at the Agri-Energy Facility in May 2012, we have encountered some production challenges, including contamination issues, which have resulted in lower than planned isobutanol production. While we have resumed limited production of isobutanol at the Agri-Energy Facility, this is our first commercial isobutanol production facility and we may encounter further production challenges, including, but not limited to, being unable to manage plant contamination, and we may need to add additional processing steps or incur additional capital expenditures to achieve our target customers' product specifications. Any such production challenges may delay our ramp up of production capacity, prevent us from producing significant quantities of isobutanol, significantly increase our cost to produce isobutanol, or cause us to temporarily switch to producing ethanol or produce both products simultaneously, which could have a material adverse effect on our business, financial condition and results of operations.

Some of our Retrofits, including the Retrofit of the Agri-Energy Facility, may include additional equipment that we believe will allow us to switch between ethanol and isobutanol production, or produce both products simultaneously, but we cannot guarantee that we will be successful in switching between isobutanol and ethanol production, or producing both products simultaneously, in a timely or efficient manner at these facilities.

In July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. We believe that the capability to switch between ethanol and isobutanol production, or produce both products simultaneously (as evidenced by our Agri-Energy Facility) will, subject to regulatory factors and depending on market conditions, mitigate certain significant risks associated with startup operations for isobutanol production. However, there can be no assurance that we will be able to revert to ethanol production, or produce both products simultaneously at future plants, or that it will make sense, based on the then-current economic conditions for the production of ethanol, to do so. Even if we are able to revert to ethanol production, or produce both products simultaneously at certain facilities, those facilities may produce ethanol less efficiently or in lower volumes than they did prior to the Retrofit and such ethanol production may not generate positive economic returns. If we are unable to produce isobutanol at the volumes, rates and costs that we expect and are unable to revert to ethanol production at full capacity, or produce both products simultaneously, we would be unable to match the facility's historical economic performance and our business, financial condition and results of operations would be materially adversely affected.

Fluctuations in the price of corn and other feedstocks may affect our cost structure.

Our approach to the biofuels and chemicals markets will be dependent on the price of corn and other feedstocks that will be used to produce ethanol and isobutanol. A decrease in the availability of plant feedstocks or an increase in the price may have a material adverse effect on our financial condition and operating results. At certain levels, prices may make these products uneconomical to use and produce, as we may be unable to pass the full amount of feedstock cost increases on to our customers.

The price and availability of corn and other plant feedstocks may be influenced by general economic, market and regulatory factors. These factors include weather conditions, farming decisions, government policies and subsidies with respect to agriculture and international trade, and global demand and supply. For example, corn prices may increase significantly in response to drought conditions in the Midwestern region of the U.S. and any concerns that a resulting decrease in the supply of corn could lead to the restriction of corn supplies, which in turn could cause further increases in the price of corn. The significance and relative impact of these factors on the price of plant feedstocks is difficult to predict, especially without knowing what types of plant feedstock materials we may need to use.

Fluctuations in the price and availability of natural gas may harm our performance.

The ethanol facilities that we have Retrofitted or plan to Retrofit to produce isobutanol, use significant amounts of natural gas to produce ethanol. After Retrofit with our GIFT ® technology, these facilities will continue to require natural gas to produce isobutanol and/or ethanol. Accordingly, our business is dependent upon natural gas supplied by third parties. The prices for and availability of natural gas are subject to volatile market conditions. These market conditions are affected by factors beyond our control, such as weather conditions, overall economic conditions and governmental regulations. Should the price of natural gas increase, our performance could suffer. Likewise, disruptions in the supply of natural gas could have a material impact on our business and results of operations.

Fluctuations in petroleum prices and customer demand patterns may reduce demand for biofuels and bio-based chemicals.

We anticipate marketing our biofuel as an alternative to petroleum-based fuels. Therefore, if the price of oil falls, any revenues that we generate from biofuel products could decline, and we may be unable to produce products that are a commercially viable alternative to petroleum-based fuels. Additionally, demand for liquid transportation fuels, including biofuels, may decrease due to economic conditions or otherwise. We will encounter similar risks in the chemicals industry, where declines in the price of oil may make petroleum-based hydrocarbons less expensive, which could reduce the competitiveness of our bio-based alternatives.

Changes in the prices of distiller’s grains and iDGs™ could have a material adverse effect on our financial condition.

We sell distiller’s grains as a co-product from the production of ethanol at the Agri-Energy Facility during any period in which the production of isobutanol is temporarily paused and our management decides, based on the then-current economic conditions for the production of ethanol, that the Agri-Energy Facility will be temporarily reverted to ethanol production, or produce both products simultaneously. We may also sell distiller’s grains produced by other ethanol facilities that we acquire, enter into a joint venture or tolling arrangement with, or license to in the future. We also plan to sell the iDGs™ that will be produced as a co-product of our commercial isobutanol production. Distiller’s grains and iDGs™ compete with other animal feed products, and decreases in the prices of these other products could decrease the demand for and price of distiller’s grains and iDGs™. Additionally, we have not yet produced commercial iDGs™ and, as such, there is a risk that our iDGs™ may not meet market requirements. If the price of distiller’s grains and iDGs™ decreases or our iDGs™ do not meet market requirements, our revenue from the sale of distiller’s grains and future revenue from the sale of iDGs™ could suffer, which could have a material adverse effect on our financial condition.

To the extent that we produce ethanol at accessed plants before commencing isobutanol production, or during periods in which we make the strategic decision to revert to ethanol production, or produce both products simultaneously, we will be vulnerable to fluctuations in the price of and cost to produce ethanol.

We believe that, like the Agri-Energy Facility, the other ethanol production facilities we access can continue to produce ethanol during most of the Retrofit process. In certain cases, we expect to obtain income from this ethanol production. Further, we have designed our isobutanol production technology (including the Retrofit of the Agri-Energy Facility) to allow us to revert to ethanol production at certain facilities, or produce both products simultaneously, when the economic conditions for ethanol production make such production desirable. Our earnings from ethanol revenue will be dependent on the price of, demand for and cost to produce ethanol. Decreases in the price of ethanol, whether caused by decreases in gasoline prices, changes in regulations, seasonal fluctuations or otherwise, will reduce our revenues, while increases in the cost of production will reduce our margins. To the extent that ethanol production costs increase or price decreases, earnings from ethanol production could suffer, which could have a material adverse effect on our business.

In recent years, the spread between ethanol and corn prices has fluctuated widely and narrowed significantly. Fluctuations are likely to continue to occur. Unfavorable weather conditions led to a smaller than expected corn harvest across affected areas of the U.S. Midwest region in the fall of 2012. This, along with smaller corn carryover in the last two crop years and higher export demand for corn led to higher corn prices during 2012 and the first half of 2013 and increased corn price volatility. The price of ethanol during that time did not keep pace with rising corn prices which resulted in lower and, in some instances negative, operating margins in the ethanol industry. As a result, during the fourth quarter of 2012, our management determined that the production of ethanol at the Agri-Energy Facility would not produce a positive margin versus maintaining the Agri-Energy Facility at idle. Likewise, the recent decline in oil prices has translated into lower gasoline prices in the U.S., which have resulted in lower ethanol prices and ethanol profit margins. It is unclear when or if ethanol prices may rebound, and consequently, when or if near-term ethanol margins will increase from current levels. Our inability to rely on ethanol production as an alternative revenue source due to rising corn prices or otherwise could have a material adverse effect on our business, financial condition and results of operations.

Sustained narrow commodity margins may cause us to operate at a loss or to reduce or suspend production of ethanol and/or isobutanol at the Agri-Energy Facility, and we may or may not be able to recommence production when margins improve.

Our results from operations will be substantially dependent on commodity prices. Many of the risks associated with volatile commodity prices, including fluctuations in feedstock costs and natural gas costs, apply both to the production of ethanol and isobutanol. Sustained unfavorable commodity prices may cause our combined revenues from sales of ethanol, isobutanol and related co-products to decline below our marginal cost of production. As market conditions change, our management may decide to reduce or suspend production of ethanol and/or isobutanol at the Agri-Energy Facility.

The decision to reduce or suspend production at a facility may create additional costs related to continued maintenance, termination of staff, certain unavoidable fixed costs, termination of customer contracts and increased costs to increase or recommence production in the future. These costs may make it difficult or impractical to increase or recommence production of ethanol and/or isobutanol at the Agri-Energy Facility even if margins improve. In addition, any reduction or suspension of the production of ethanol and/or isobutanol at the Agri-Energy Facility may slow or stop our commercialization process, which could have a material adverse effect on our business, financial condition and results of operations.

We may not be successful in the development of individual steps in, or an integrated process for, the production of commercial quantities of isobutanol from plant feedstocks in a timely or economic manner, or at all.

As of December 31, 2014, we have produced only limited quantities of isobutanol at commercial scale and we may not be successful in increasing our production from these limited startup production levels to nameplate production levels. The production of isobutanol requires multiple integrated steps, including:

- obtaining the plant feedstocks;
- treatment with enzymes to produce fermentable sugars;
- fermentation by organisms to produce isobutanol from the fermentable sugars;
- distillation of the isobutanol to concentrate and separate it from other materials;
- purification of the isobutanol; and
- storage and distribution of the isobutanol.

Our future success depends on our ability to produce commercial quantities of isobutanol in a timely and economic manner. Our biocatalysts have not yet produced commercial volumes of isobutanol at nameplate production levels. While we have produced isobutanol using our biocatalysts at our laboratories in Colorado, at the one MGPY demonstration facility and at the Agri-Energy Facility, such production was not at full nameplate capacity. Our production since the fourth quarter of 2013 has utilized a corn mash feedstock, but risk still exists for achieving nameplate capacity at this facility. The risk of contamination and other problems rise as we increase the scale of our isobutanol production. If we are unable to successfully manage these risks, we may encounter difficulties in achieving our target isobutanol production yield, rate, concentration or purity at a commercial scale, which could delay or increase the costs involved in commercializing our isobutanol production. In addition, we have limited experience sourcing large quantities of feedstocks and in storing and/or distributing significant volumes of isobutanol. The technological and logistical challenges associated with each of the processes involved in production, sale and distribution of isobutanol are extraordinary, and we may not be able to resolve any difficulties that arise in a timely or cost effective manner, or at all. Even if we are successful in developing an economical process for converting plant feedstocks into commercial quantities of isobutanol, we may not be able to adapt such process to other biomass raw materials, including cellulosic biomass.

Prior to commencement of the Agri-Energy Facility Retrofit, neither we nor ICM had ever built (through Retrofit or otherwise) or operated a commercial isobutanol facility. We assume that we understand how the engineering and process characteristics of the one MGPY demonstration facility will scale up to larger facilities, but these assumptions may prove to be incorrect. Accordingly, we cannot be certain that we can consistently produce isobutanol in an economical manner in commercial quantities. If our costs to build large-scale commercial isobutanol facilities are significantly higher than we expect or if we fail to consistently produce isobutanol economically on a commercial scale or in commercial volumes, our commercialization of isobutanol and our business, financial condition and results of operations will be materially adversely affected.

We have entered into a joint venture with Redfield Energy, LLC to Retrofit the Redfield Facility (as defined below), and our production of isobutanol at the Redfield Facility could be delayed or we could experience significant cost overruns in comparison to our current estimates.

In June 2011, we acquired access to a 50 MGPY ethanol production facility located near Redfield, South Dakota (the “Redfield Facility”), pursuant to our joint venture with Redfield Energy, LLC, a South Dakota limited liability company (“Redfield”). We intend to Retrofit this facility to produce isobutanol, and will need access to additional capital in order to commence the Retrofit. Although we will be able to apply our experience from the Retrofit of the Agri-Energy Facility, no two ethanol facilities are exactly alike, and each Retrofit will require individualized engineering and design work. Cost overruns or other unexpected difficulties unique to the Redfield Facility could cause the Retrofit to cost more than we anticipate which could further increase our need for funding. Such funds may not be available when we need them, on terms that are acceptable to us or at all, which could delay our full-scale commercial production of isobutanol at this facility. In addition, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint. If additional funding is not available to us, or not available on terms acceptable to us, our ability to complete the Retrofit of the Redfield Facility, which is not yet underway, or acquire access to or Retrofit additional ethanol plants may be limited. Such a result could reduce the scope of our business plan and have an adverse effect on our results of operations.

We may not be able to successfully identify and acquire access to additional ethanol production facilities suitable for efficient Retrofitting, or acquire access to sufficient capacity to be commercially viable or meet customer demand.

Our strategy currently includes accessing and Retrofitting, either independently or with potential development partners or licensees, existing ethanol facilities for the production of large quantities of isobutanol for commercial distribution and sale. In addition to the Agri-Energy Facility, we have acquired access to the 50 MGPY Redfield Facility pursuant to our joint venture with

Redfield. However, we may not find future development partners with whom we can implement this growth strategy, and we may not be able to identify facilities suitable for joint venture, acquisition, lease or license.

Even if we successfully identify a facility suitable for efficient Retrofitting, we may not be able to acquire access to such facility in a timely manner, if at all. The owners of the ethanol facility may reach an agreement with another party, refuse to consider a joint venture, acquisition, lease or license, or demand more or different consideration than we are willing to provide. In particular, if the profitability of ethanol production increases, plant owners may be less likely to consider modifying their production, and thus may be less willing to negotiate with us or agree to allow us to Retrofit their facilities for isobutanol production. We may also find that it is necessary to offer special terms, incentives and/or rebates to owners of ethanol facilities that allow us to access and Retrofit their facilities while our production technology is being proven on a commercial scale. Even if the owners of a facility are interested in reaching an agreement that grants us access to the plant, negotiations may take longer or cost more than we expect, and we may never achieve a final agreement. Further, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint, and we may not be able to raise capital on acceptable terms, or at all, to finance our joint venture, acquisition, participation or lease of facilities.

Even if we are able to access and Retrofit several facilities, we may fail to access enough capacity to be commercially viable or meet the volume demands or minimum requirements of our customers, including pursuant to definitive supply or distribution agreements that we may enter into, which may subject us to monetary damages. Failure to acquire access to sufficient capacity in a timely manner and on favorable terms may slow or stop our commercialization process, which could have a material adverse effect on our business, financial condition and results of operations.

Once we acquire access to ethanol facilities, we may be unable to successfully Retrofit them to produce isobutanol, or we may not be able to Retrofit them in a timely and cost-effective manner.

For each ethanol production facility to which we acquire access, we will be required to obtain numerous regulatory approvals and permits to Retrofit and operate the facility. In the U.S., these include such items as a modification to the air permit, fuel registration with the EPA, ethanol excise tax registration and others. These requirements may not be satisfied in a timely manner, or at all. Later-enacted federal and state governmental requirements may also substantially increase our costs or delay or prevent the completion of a Retrofit, which could have a material adverse effect on our business, financial condition and results of operations.

No two ethanol facilities are exactly alike, and each Retrofit will require individualized engineering and design work. There is no guarantee that we or any contractor we retain will be able to successfully design a commercially viable Retrofit, or properly complete the Retrofit once the engineering plans are completed. Prior to commencement of the Agri-Energy Facility Retrofit, neither we nor ICM had ever built, via Retrofit or otherwise, a full-scale commercial isobutanol facility. Despite our experience with the Retrofit of the Agri-Energy Facility, our estimates of the capital costs that we will need to incur to Retrofit a commercial-scale ethanol facility may prove to be inaccurate, and each Retrofit may cost materially more to engineer and build than we currently anticipate. For example, our estimates assume that each plant we Retrofit will be performing at full production capacity, and we may need to expend substantial sums to repair or modify underperforming facilities prior to Retrofit.

Our Retrofit design to convert existing ethanol production capacity to isobutanol production capacity was developed in cooperation with ICM and is based on ICM technology. There is no guarantee that this Retrofit design will be compatible with existing ethanol facilities that do not utilize ICM technology. Before we can Retrofit such facilities, we may need to modify them to be compatible with our Retrofit design. This may require significant additional expenditure of time and money, and there is no guarantee such modification will be successful.

Furthermore, the Retrofit of acquired facilities will be subject to the risks inherent in the build-out of any manufacturing facility, including risks of delays and cost overruns as a result of factors that may be out of our control, such as delays in the delivery of equipment and subsystems or the failure of such equipment to perform as expected once delivered. In addition, we will depend on third-party relationships in expanding our isobutanol production capacity and such third parties may not fulfill their obligations to us under our arrangements with them. Delays, cost overruns or failures in the Retrofit process will slow our commercial production of isobutanol and harm our performance.

Though our Retrofit design for certain facilities will include the capability to switch between isobutanol and ethanol production, or produce both products simultaneously (as demonstrated by our Agri-Energy Facility), we may be unable to successfully revert to ethanol production, or produce both products simultaneously at certain facilities, or such facilities may produce ethanol less efficiently or in lower volumes than they did before the Retrofit. In addition, we may be unable to secure the necessary regulatory approvals and permits to switch between isobutanol and ethanol production, or produce both products simultaneously, in a timely manner, or at all. Thus, if we fail to achieve commercial levels of isobutanol production at a Retrofitted facility, we may be unable to rely on ethanol production as an alternative or additional revenue source, which could have a material adverse effect on our prospects.

Our facilities and process may fail to produce isobutanol at the volumes, rates and costs we expect.

Some or all of the facilities we choose to Retrofit may be in locations distant from corn or other feedstock sources, which could increase our feedstock costs or prevent us from acquiring sufficient feedstock volumes for commercial production. General market conditions might also cause increases in feedstock prices, which could likewise increase our production costs.

Even if we secure access to sufficient volumes of feedstock, the facilities we Retrofit for isobutanol production may fail to perform as expected. The equipment and subsystems installed during the Retrofit may never operate as planned. Our systems may prove incompatible with the original facility, or require additional modification after installation. Our biocatalyst may perform less efficiently than it did in testing, if at all. Contamination of plant equipment may require us to replace our biocatalyst more often than expected, require unplanned installation or replacement of equipment, or cause our fermentation process to yield undesired or harmful by-products. Likewise, our feedstock may contain contaminants like wild yeast, which naturally ferments feedstock into ethanol. The presence of contaminants, such as wild yeast, in our feedstock could reduce the purity of the isobutanol that we produce and require us to invest in more costly isobutanol separation processes or equipment. Unexpected problems may force us to cease or delay production and the time and costs involved with such delays may prove prohibitive. Any or all of these risks could prevent us from achieving the production throughput and yields necessary to achieve our target annualized production run rates and/or to meet the volume demands or minimum requirements of our customers, including pursuant to definitive supply or distribution agreements that we may enter into, which may subject us to monetary damages. Failure to achieve these rates or meet these minimum requirements, or achieving them only after significant additional expenditures, could substantially harm our commercial performance.

We may be unable to produce isobutanol in accordance with customer specifications.

Even if we produce isobutanol at our targeted rates, we may be unable to produce isobutanol that meets customer specifications, including those defined in ASTM D7862 “Standard Specification for Butanol for Blending with Gasoline for Use as Automotive Spark-Ignition Engine Fuel.” We may need to add additional processing steps or incur capital expenditures in order to meet customer specifications which could add significant costs to our production process. For example, at the Agri-Energy Facility we intend to acquire and install a product purification column, which we believe will allow us to achieve our target customers’ product specifications without continuing to rely on third-party contract tolling providers. If we fail to meet specific product or volume specifications contained in a supply agreement, the customer may have the right to seek an alternate supply of isobutanol and/or terminate the agreement completely, and we could be required to pay shortfall fees or otherwise be subject to damages. A failure to successfully meet the specifications of our potential customers could decrease demand, and significantly hinder market adoption of our products.

We lack significant experience operating commercial-scale ethanol and isobutanol facilities, and may encounter substantial difficulties operating commercial plants or expanding our business.

We have very limited experience operating commercial-scale ethanol and isobutanol facilities. Accordingly, we may encounter significant difficulties operating at a commercial scale. We believe that our future facilities will, like the Agri-Energy Facility, be able to continue producing ethanol during much of the Retrofit process. We will need to successfully administer and manage this production. Though ICM and the employees of Agri-Energy and Redfield are experienced in the operation of ethanol facilities, and our future development partners or the entities that we acquire may likewise have such experience, we may be unable to manage ethanol-producing operations, especially given the possible complications associated with a simultaneous Retrofit. Once we complete a commercial Retrofit, operational difficulties may increase, because neither we nor anyone else has significant experience operating a pure isobutanol fermentation facility at a commercial scale. The skills and knowledge gained in operating commercial ethanol facilities or small-scale isobutanol plants may prove insufficient for successful operation of a large-scale isobutanol facility, and we may be required to expend significant time and money to develop our capabilities in isobutanol facility operation. We may also need to hire new employees or contract with third parties to help manage our operations, and our performance will suffer if we are unable to hire qualified parties or if they perform poorly.

We may face additional operational difficulties as we further expand our production capacity. Integrating new facilities with our existing operations may prove difficult. Rapid growth, resulting from our operation of, or other involvement with, isobutanol facilities or otherwise, may impose a significant burden on our administrative and operational resources. To effectively manage our growth and execute our expansion plans, we will need to expand our administrative and operational resources substantially and attract, train, manage and retain qualified management, technicians and other personnel. We may be unable to do so. Failure to meet the operational challenges of developing and managing increased production of isobutanol and/or ethanol, or failure to otherwise manage our growth, may have a material adverse effect on our business, financial condition and results of operations.

We may have difficulty adapting our technology to commercial-scale fermentation, which could delay or prevent our commercialization of isobutanol.

While we have demonstrated the ability to produce isobutanol under the demonstration plant operating conditions and under commercial scale operating conditions at the Agri-Energy Facility, and we have succeeded in reaching our commercial fermentation performance targets for isobutanol concentration, fermentation productivity and isobutanol yield in laboratory tests, we have not yet accomplished these performance targets in a commercial plant environment. Ultimately, our yeast biocatalyst may not be able to meet the commercial performance targets at nameplate production capacity in a timely manner, or ever. In addition, the risk of contamination and other problems may increase as we seek to ramp up our production capacity, which could negatively impact our cost of production. If we encounter difficulties in optimizing our production, our commercialization of isobutanol and our business, financial condition and results of operations will be materially adversely affected.

We may have difficulties gaining market acceptance and successfully marketing our isobutanol to customers, including chemical producers, fuel distributors and refiners.

A key component of our business strategy is to market our isobutanol to chemical producers, fuels distributors and refiners. We have no experience marketing isobutanol on a commercial scale and we may fail to successfully negotiate marketing agreements in a timely manner or on favorable terms. If we fail to successfully market our isobutanol to refiners, fuels distributors and chemical producers, our business, financial condition and results of operations will be materially adversely affected.

We also intend to market our isobutanol to chemical producers for use in making various chemicals such as isobutylene, a type of butene that can be produced through the dehydration of isobutanol. Although a significant market currently exists for isobutylene produced from petroleum, which is widely used in the production of plastics, specialty chemicals, alkylate for gasoline blending and high octane aviation gasoline, no one has successfully created isobutylene on a commercial scale from bio-isobutanol. Therefore, to gain market acceptance and successfully market our isobutanol to chemical producers, we must show that our isobutanol can be converted into isobutylene at a commercial scale. As no company currently dehydrates commercial volumes of isobutanol into isobutylene, we must demonstrate the large-scale feasibility of the process and reach agreements with companies that are willing to invest in the necessary dehydration infrastructure. Failure to reach favorable agreements with these companies, or the inability of their plants to convert isobutanol into isobutylene at sufficient scale, will slow our development in the chemicals market and could significantly affect our profitability.

Obtaining market acceptance in the chemicals industry is complicated by the fact that many potential chemicals industry customers have invested substantial amounts of time and money in developing petroleum-based production channels. These potential customers generally have well-developed manufacturing processes and arrangements with suppliers of chemical components, and may display substantial resistance to changing these processes. Pre-existing contractual commitments, unwillingness to invest in new infrastructure, distrust of new production methods and lengthy relationships with current suppliers may all slow market acceptance of isobutanol.

No market currently exists for isobutanol as a fuel or as a gasoline blendstock. Therefore, to gain market acceptance and successfully market our isobutanol to fuels distributors and refiners, we must effectively demonstrate the commercial advantages of using isobutanol over other biofuels and blendstocks, as well as our ability to produce isobutanol reliably on a commercial scale at a sufficiently low cost. We must show that isobutanol is compatible with existing infrastructure and does not damage pipes, engines, storage facilities or pumps. We must also overcome marketing and lobbying efforts by producers of other biofuels and blendstocks, including ethanol, many of whom may have greater resources than we do. If the markets for isobutanol as a fuel or as a gasoline blendstock do not develop as we currently anticipate, or if we are unable to penetrate these markets successfully, our revenue and revenue growth rate, if any, could be materially and adversely affected.

We believe that consumer demand for environmentally sensitive products will drive demand among large brand owners for renewable hydrocarbon sources. One of our marketing strategies is to leverage this demand to obtain commitments from large brand owners to purchase products made from our isobutanol by third parties. We believe these commitments will, in turn, promote chemicals industry demand for our isobutanol. If consumer demand for environmentally sensitive products fails to develop at sufficient scale or if such demand fails to drive large brand owners to seek sources of renewable hydrocarbons, our revenue and growth rate could be materially and adversely affected.

We may face substantial delay in getting regulatory approvals for use of our isobutanol in the fuels and chemicals markets, which could substantially hinder our ability to commercialize our products.

Large-scale commercialization of our isobutanol may require approvals from state and federal agencies. Before we can sell isobutanol as a fuel or as a gasoline blendstock directly to large petroleum refiners, we must receive EPA fuel certification. We have filed EPA Part 79 registration to move our small business registration to a full registration (including Tier 1 EPA testing), and the approval process may require significant time. Approval can be delayed for years, and there is no guarantee of receiving it.

Additionally, California requires that fuels meet both its fuel certification requirements and a separate state low-carbon fuel standard. Any delay in receiving approval will slow or prevent the commercialization of our isobutanol for fuel markets, which could have a material adverse effect on our business, financial condition and results of operations.

With respect to the chemicals markets, we plan to focus on isobutanol production and sell to companies that can convert our isobutanol into other chemicals, such as isobutylene. However, should we later decide to produce these other chemicals ourselves, we may face similar requirements for EPA and other regulatory approvals. Approval, if ever granted, could be delayed for substantial amounts of time, which could significantly harm the development of our business and prevent the achievement of our goals.

Our isobutanol fermentation process utilizes a genetically modified organism which, when used in an industrial process, is considered a new chemical under the EPA's Toxic Substances Control Act ("TSCA"). The TSCA requires us to comply with the EPA's Microbial Commercial Activity Notice process to operate plants producing isobutanol using our biocatalysts. The TSCA's new chemicals submission policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our isobutanol production.

There are various third-party certification organizations, such as ASTM and Underwriters' Laboratories, Inc., involved in standard-setting regarding the transportation, dispensing and use of liquid fuel in the U.S. and abroad. These organizations may change the current standards and additional requirements may be enacted that could prevent or delay approval of our products. The process of seeking required approvals and the continuing need for compliance with applicable standards may require the expenditure of substantial resources, and there is no guarantee that we will satisfy these standards in a timely manner, if ever.

In addition, to Retrofit or otherwise modify ethanol facilities and operate the Retrofitted and modified plants to produce isobutanol, we will need to obtain and comply with a number of permit requirements. As a condition to granting necessary permits, regulators may make demands that could increase our Retrofit, modification or operations costs, and permit conditions could also restrict or limit the extent of our operations, which could delay or prevent our commercial production of isobutanol. We cannot guarantee that we will be able to meet all regulatory requirements or obtain and comply with all necessary permits to complete our planned ethanol plant Retrofits, and failure to satisfy these requirements in a timely manner, or at all, could have a substantial negative effect on our performance.

Jet fuels must meet various statutory and regulatory requirements before they may be used in commercial aviation. In the U.S., the use of specific jet fuels is regulated by the Federal Aviation Administration ("FAA"). Rather than directly approving specific fuels, the FAA certifies individual aircraft for flight. This certification includes authorization for an aircraft to use the types of fuels specified in its flight manual. To be included in an aircraft's flight manual, the fuel must meet standards set by ASTM. The current ASTM requirements do not permit the use of jet fuel derived from isobutanol, and we will need to give ASTM sufficient data to justify creating a new standard applicable to ATJ. Though our work testing isobutanol-based ATJ with the U.S. Air Force Research Laboratory has provided us with data we believe ASTM will take into consideration, the process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations will require the expenditure of substantial resources. Failure to obtain regulatory approval in a timely manner, or at all, could have a significant negative effect on our operations.

We may be unable to successfully negotiate final, binding terms related to our current non-binding isobutanol supply and distribution agreements, which could harm our commercial prospects.

In addition to a limited number of definitive supply and distribution agreements, we have agreed to preliminary terms regarding supplying isobutanol or the products derived from it to various companies for their use or further distribution, including LANXESS, Inc. and TOTAL PETROCHEMICALS USA, Inc. We may be unable to negotiate final terms with these or other companies in a timely manner, or at all, and there is no guarantee that the terms of any final agreement will be the same or similar to those currently contemplated in our preliminary agreements. Final terms may include less favorable pricing structures or volume commitments, more expensive delivery or purity requirements, reduced contract durations and other adverse changes. Delays in negotiating final contracts could slow our initial isobutanol commercialization, and failure to agree to definitive terms for sales of sufficient volumes of isobutanol could prevent us from growing our business. To the extent that terms in our initial supply and distribution contracts may influence negotiations regarding future contracts, the failure to negotiate favorable final terms related to our current preliminary agreements could have an especially negative impact on our growth and profitability. Additionally, we have not demonstrated that we can meet the production levels contemplated in our current non-binding supply agreements. If our production scale-up proceeds more slowly than we expect, or if we encounter difficulties in successfully completing plant Retrofits, potential customers, including those with whom we have current letters of intent, may be less willing to negotiate definitive supply agreements, or demand terms less favorable to us, and our performance may suffer.

Even if we are successful in consistently producing isobutanol on a commercial scale, we may not be successful in negotiating sufficient supply agreements for our production.

We expect that many of our customers will be large companies with extensive experience operating in the fuels or chemicals markets. As an early stage company, we lack commercial operating experience, and may face difficulties in developing marketing expertise in these fields. Our business model relies upon our ability to successfully negotiate and structure long-term supply agreements for the isobutanol we produce. Many of our potential customers may be more experienced in these matters than we are, and we may fail to successfully negotiate these agreements in a timely manner or on favorable terms which, in turn, may force us to slow our production, delay our acquiring and Retrofitting of additional plants, dedicate additional resources to increasing our storage capacity and/or dedicate resources to sales in spot markets. Furthermore, should we become more dependent on spot market sales, our profitability will become increasingly vulnerable to short-term fluctuations in the price and demand for petroleum-based fuels and competing substitutes.

Even if we are successful in consistently producing isobutanol on a commercial scale, we may not be successful in negotiating pricing terms sufficient to generate positive results from operations at the Agri-Energy Facility.

We expect that many of our customers will be large companies with extensive experience operating in the fuels or chemicals markets. As an early stage company, we lack commercial operating experience, and may face difficulties in developing marketing expertise in these fields. Our business model relies upon our ability to negotiate pricing terms for the isobutanol we produce that generate positive results from the operations of the Agri-Energy Facility. Many of our potential customers may be more experienced in these matters than we are. We may fail to negotiate these agreements in a timely manner, which may force us to dedicate resources to sales in spot markets. If we become more dependent on spot market sales our profitability will become increasingly vulnerable to short-term fluctuations in the price and demand for our products.

Our isobutanol may encounter physical or regulatory issues, which could limit its usefulness as a gasoline blendstock.

In the gasoline blendstock market, isobutanol can be used in conjunction with, or as a substitute for, ethanol and other widely used fuel oxygenates, and we believe our isobutanol will be physically compatible with typical gasoline engines. However, there is a risk that under actual engine conditions, isobutanol will face significant limitations, making it unsuitable for use in high percentage gasoline blends. Additionally, current regulations limit gasoline blends to low percentages of isobutanol, and also limit combination isobutanol-ethanol blends. Government agencies may maintain or even increase the restrictions on isobutanol gasoline blends. As we believe that the potential to use isobutanol in higher percentage blends than is feasible for ethanol will be an important factor in successfully marketing isobutanol to refiners, a low blend wall could significantly limit commercialization of isobutanol as a gasoline blendstock.

Our isobutanol may be less compatible with existing refining and transportation infrastructure than we believe, which may hinder our ability to market our product on a large scale.

We developed our business model based on our belief that our isobutanol is fully compatible with existing refinery infrastructure. For example, when making isobutanol blends, we believe that gasoline refineries will be able to pump our isobutanol through their pipes and blend it in their existing facilities without damaging their equipment. If our isobutanol proves unsuitable for such handling, it will be more expensive for refiners to use our isobutanol than we anticipate, and they may be less willing to adopt it as a gasoline blendstock, forcing us to seek alternative purchasers.

Likewise, our plans for marketing our isobutanol are based upon our belief that it will be compatible with the pipes, tanks and other infrastructure currently used for transporting, storing and distributing gasoline. If our isobutanol or products incorporating our isobutanol cannot be transported with this equipment, we will be forced to seek alternative transportation arrangements, which will make our isobutanol and products produced from our isobutanol more expensive to transport and less appealing to potential customers. Reduced compatibility with either refinery or transportation infrastructure may slow or prevent market adoption of our isobutanol, which could substantially harm our performance.

We may be required to obtain additional regulatory approvals for use of our iDGs™ as animal feed, which could delay our ability to sell iDGs™ increasing our net cost of production and harming our operating results.

Most of the ethanol plants we initially plan to Retrofit use dry-milled corn as a feedstock. Once we have optimized our full-scale commercial isobutanol production process, we plan to sell, as animal feed, the iDGs™ left as a co-product of fermenting isobutanol from dry-milled corn. We believe that this will enable us to offset a significant portion of the expense of purchasing corn for fermentation. We are currently approved to sell iDGs™ as animal feed through a self-assessed Generally Regarded as Safe (GRAS) process via third party scientific review. In order to improve the value of our iDGs™, we are also in the process of obtaining U.S. Food and Drug Administration ("FDA") approval for the marketing of our iDGs™. We believe obtaining FDA approval will increase the value of our iDGs™ by offering customers of our iDGs™ further assurance of the safety of our iDGs™. If we make changes in our biocatalyst whereby we can no longer rely on our GRAS process, we would be required to obtain FDA approval for marketing our iDGs™. FDA testing and approval can take a significant amount of time, and there is no guarantee that we will ever receive such approval. If FDA approval is delayed or never obtained, or if we are unable to secure market acceptance for our iDGs™, our net cost of production will increase, which may hurt our operating results.

Our development strategy relies heavily on our relationship with ICM.

We rely heavily upon our relationship with ICM. In October 2008, we entered into a development agreement and a commercialization agreement with ICM, each of which has since been amended. Pursuant to the terms of the development agreement, ICM engineers helped us install the equipment necessary to test and develop our isobutanol fermentation process at ICM's one MGPY ethanol demonstration facility, and ICM agreed to assist us in running and maintaining the converted plant. We have used the demonstration plant to improve our biocatalysts and to develop processes for commercial-scale production of isobutanol. Under the commercialization agreement, as amended, ICM serves as our exclusive engineering, procurement and construction ("EPC") contractor for the Retrofit of ethanol plants, and we serve as ICM's exclusive technology partner for the production of butanols, pentanols and propanols from the fermentation of sugars. In August 2011, we entered into a work agreement with ICM. Pursuant to the terms of the work agreement, ICM provides EPC services for the Retrofit of ethanol plants.

Because ICM has designed a significant number of the current operating ethanol production facilities in the U.S., we believe that our exclusive alliance with ICM will provide us with a competitive advantage and allow us to more quickly achieve commercial-scale production of isobutanol. However, ICM may fail to fulfill its obligations to us under our agreements and under certain circumstances, such as a breach of confidentiality by us, can terminate the agreements. In addition, ICM may assign the agreements without our consent in connection with a change of control. Since adapting our technology to commercial-scale production of isobutanol and then Retrofitting ethanol plants to use our technology is a major part of our commercialization strategy, losing our exclusive alliance with ICM would slow our technological and commercial development. It could also force us to find a new contractor with less experience than ICM in designing and building ethanol plants, or to invest the time and resources necessary to Retrofit plants on our own. Such Retrofits may be less successful than if performed by ICM engineers, and Retrofitted plants might operate less efficiently than expected. This could substantially hinder our ability to expand our production capacity, and could severely impact our performance. If ICM fails to fulfill its obligations to us under our agreements and our competitors obtain access to ICM's expertise, our ability to realize continued development and commercial benefits from our alliance could be affected. Accordingly, if we lose our exclusive alliance with ICM, if ICM terminates or breaches its agreements with us, or if ICM assigns its agreements with us to a competitor of ours or to a third party that is not willing to work with us on the same terms or commit the same resources, our business and prospects could be harmed.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies.

We may, subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint, seek additional capital through a combination of public and private equity offerings, debt financings, strategic partnerships and licensing arrangements. To the extent that we raise additional capital through the sale or issuance of equity, warrants or convertible debt securities, your ownership interest will be diluted, and the terms of such securities may include liquidation or other preferences that adversely affect your rights as a stockholder. If we raise capital through debt financing, it may involve agreements that include covenants further limiting or restricting our ability to take certain actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through strategic partnerships or licensing agreements with third parties, we may have to relinquish valuable rights to our technologies, or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our development and commercialization efforts.

Our quarterly operating results may fluctuate in the future. As a result, we may fail to meet or exceed the expectations of investment research analysts or investors, which could cause our stock price to decline.

Our financial condition and operating results have varied significantly in the past and may continue to fluctuate from quarter to quarter and year to year in the future due to a variety of factors, many of which are beyond our control. Factors relating to our business that may contribute to these fluctuations are described elsewhere in this Report and other reports that we have filed with the SEC. Accordingly, the results of any prior quarterly or annual periods should not be relied upon as indications of our future operating performance.

A sustained low oil price environment may negatively impact the price we receive for the sale of our isobutanol, ethanol and hydrocarbon products.

Many of our end-products such as isobutanol, ethanol and hydrocarbon products have some level of price correlation with crude oil. If crude oil prices were to remain at low levels over a sustained period of time, this may have an impact on the pricing that we are able to achieve in the marketplace for many of those end-products. This may cause us to operate at a lower or negative operating margins, and as a result, our management may decide to reduce or suspend production of ethanol and/or isobutanol at the Agri-Energy Facility. Unfavorable operating margins may also impact our ability to access and Retrofit, either independently or with potential development partners or licensees, existing ethanol facilities for the production of isobutanol for commercial distribution and sale.

Reductions or changes to existing regulations and policies may present technical, regulatory and economic barriers, all of which may significantly reduce demand for biofuels or our ability to supply isobutanol.

The market for biofuels is heavily influenced by foreign, federal, state and local government regulations and policies. For example, in 2007, the U.S. Congress passed an alternative fuels mandate that required nearly 14 billion gallons of liquid transportation fuels sold in 2011 to come from alternative sources, including biofuels, a mandate that grows to 36 billion gallons by 2022. Of this amount, a minimum of 21 billion gallons must be advanced biofuels as defined by the U.S. Congress. The EPA has set the renewable fuels volume requirement for 2013 at 16.55 billion gallons. In the U.S., and in a number of other countries, these regulations and policies have been modified in the past and may be modified again in the future. Any reduction in mandated requirements for fuel alternatives and additives to gasoline may cause the demand for biofuels to decline and deter investment in the research and development of biofuels. For example, the Energy and Commerce Committee of the U.S. House of Representatives has undertaken an assessment of the RFS program and has published five white papers on the subject during the current congressional period. The EPA has also said that it plans to assess the E10 blendwall and current infrastructure and market-based limitations to the consumption of ethanol in gasoline-ethanol blends above E10. In particular, the EPA is proposing to cut the volume requirements for advanced biofuels by more than 40% when compared to the requirements currently written into the statute. This proposal has created significant concerns throughout the biofuels industry, many of which were voiced by the biofuels industry during the public comment period. This type of legislative activity can create concern in the marketplace about the long-term sustainability of governmental policies. The absence of tax credits, subsidies and other incentives in the U.S. and foreign markets for biofuels, or any inability of our customers to access such credits, subsidies and incentives, may adversely affect demand for our products, which would adversely affect our business. The resulting market uncertainty regarding current and future standards and policies may also affect our ability to develop new renewable products or to license our technologies to third parties and to sell products to our end customers.

Concerns associated with biofuels, including land usage, national security interests and food crop usage, continue to receive legislative, industry and public attention. This attention could result in future legislation, regulation and/or administrative action that could adversely affect our business. Any inability to address these requirements and any regulatory or policy changes could have a material adverse effect on our business, financial condition and results of operations.

Additionally, like the ethanol facilities that we Retrofit, our isobutanol plants will emit greenhouse gases. Any changes in state or federal emissions regulations, including the passage of cap-and-trade legislation or a carbon tax, could limit our production of isobutanol and iDGs™ and increase our operating costs, which could have a material adverse effect on our business, financial condition and results of operations.

If we engage in additional acquisitions, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations.

If appropriate opportunities become available, we expect to acquire businesses, assets, technologies or products to enhance our business in the future. In connection with any future acquisitions, we could, subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint:

- issue additional equity securities which would dilute our current stockholders;
- incur substantial debt to fund the acquisitions; or
- assume significant liabilities.

Acquisitions involve numerous risks, including problems integrating the purchased operations, technologies or products, unanticipated costs and other liabilities, diversion of management's attention from our core business, adverse effects on existing business relationships with current and/or prospective partners, customers and/or suppliers, risks associated with entering markets in which we have no or limited prior experience and potential loss of key employees. Other than our acquisition of Agri-Energy, we have not engaged in acquisitions in the past, and do not have experience in managing the integration process. Therefore, we may not be able to successfully integrate any businesses, assets, products, technologies or personnel that we might acquire in the future without a significant expenditure of operating, financial and management resources, if at all. The integration process could divert management time from focusing on operating our business, result in a decline in employee morale and cause retention issues to arise from changes in compensation, reporting relationships, future prospects or the direction of the business. In addition, we may acquire companies that have insufficient internal financial controls, which could impair our ability to integrate the acquired company and adversely impact our financial reporting. If we fail in our integration efforts with respect to acquisitions and are unable to efficiently operate as a combined organization, our business, financial condition and results of operations may be materially adversely affected.

If we engage in additional joint ventures, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations.

If appropriate opportunities become available, we expect to enter into joint ventures with the owners of existing ethanol production facilities in order to acquire access to additional isobutanol production capacity. We currently anticipate that in each such joint venture, the ethanol producer would contribute access to its existing ethanol production facility and we would be responsible for Retrofitting such facility to produce isobutanol. Upon completion of the Retrofit, and in some cases the attainment of certain performance targets, both parties to the joint venture would receive a portion of the profits from the sale of isobutanol, consistent with our business model. In connection with these joint ventures, we could incur substantial debt to fund the Retrofit of the accessed facilities and we could assume significant liabilities.

Realizing the anticipated benefits of joint ventures, including projected increases to production capacity and additional revenue opportunities, involves a number of potential challenges. The failure to meet these challenges could seriously harm our financial condition and results of operations. Joint ventures are complex and time-consuming and we may encounter unexpected difficulties or incur unexpected costs related to such arrangements, including:

- difficulties negotiating joint venture agreements with favorable terms and establishing relevant performance metrics;
- difficulties completing the Retrofits of the accessed facilities using our integrated fermentation technology;
- the inability to meet applicable performance targets related to the production of isobutanol;
- difficulties obtaining the permits and approvals required to produce and sell our products in different geographic areas;
- complexities associated with managing the geographic separation of accessed facilities;
- diversion of management attention from ongoing business concerns to matters related to the joint ventures;
- difficulties maintaining effective relationships with personnel from different corporate cultures; and
- the inability to generate sufficient revenue to offset Retrofit costs.

Additionally, our joint venture partners may have liabilities or adverse operating issues that we fail to discover through due diligence prior to entering into the joint ventures. In particular, to the extent that our joint venture partners failed to comply with or otherwise violated applicable laws or regulations, or failed to fulfill their contractual obligations, we may suffer financial harm and/or reputational harm for these violations or otherwise be adversely affected.

Our joint venture partners may have significant amounts of existing debt and may not be able to service their existing debt obligations, which could cause the failure of a specific project and the loss by us of any investment we have made to Retrofit the facilities owned by the joint venture partner. In addition, if we are unable to meet specified performance targets related to the production of isobutanol at a facility owned by one of our joint venture partners, we may never become eligible to receive a portion of the profits of the joint venture and may be unable to recover the costs of Retrofitting the facility.

Additionally, we plan to be the sole marketer for all isobutanol and co-products produced using our proprietary technology including, without limitation, all isobutanol that is produced by any facilities that we access via joint venture. Marketing agreements can be very complex and the obligations that we assume as the sole marketer of isobutanol may be time consuming. We have no experience marketing isobutanol on a commercial scale and we may fail to successfully negotiate marketing agreements in a timely manner or on favorable terms. If we fail to successfully market the isobutanol produced using our proprietary technology to refiners and chemical producers, our business, financial condition and results of operations will be materially adversely affected.

If we lose key personnel, including key management personnel, or are unable to attract and retain additional personnel, it could delay our product development programs and harm our research and development efforts, we may be unable to pursue partnerships or develop our own products and it may trigger an event of default under the agreements governing our indebtedness, including our secured indebtedness with TriplePoint.

Our business is complex and we intend to target a variety of markets. Therefore, it is critical that our management team and employee workforce are knowledgeable in the areas in which we operate. The loss of any key members of our management, including our named executive officers, or the failure to attract or retain other key employees who possess the requisite expertise for the conduct of our business, could prevent us from developing and commercializing our products for our target markets and entering into partnerships or licensing arrangements to execute our business strategy. In addition, the loss of any key scientific staff, or the failure to attract or retain other key scientific employees, could prevent us from developing and commercializing our products for our target markets and entering into partnerships or licensing arrangements to execute our business strategy. We may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among biotechnology and other technology-based businesses, particularly in the advanced biofuels area, or due to the limited availability of personnel with the qualifications or experience necessary for our renewable chemicals and advanced biofuels business. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that will adversely affect our ability to meet the demands of our partners and customers in a timely fashion or to support our internal research and development programs. In particular, our product and process development programs are dependent on our ability to attract and retain highly skilled scientists. Competition for experienced scientists and other technical personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. Additionally, certain changes in our management could trigger an event of default under the agreements governing our indebtedness, including our secured indebtedness with TriplePoint, and we could be forced to pay the outstanding balance of the loan(s) in full. All of our employees are at-will employees, meaning that either the employee or we may terminate their employment at any time.

Our planned activities will require additional expertise in specific industries and areas applicable to the products and processes developed through our technology platform or acquired through strategic or other transactions, especially in the end markets that we seek to penetrate. These activities will require the addition of new personnel, and the development of additional expertise by existing personnel. The inability to attract personnel with appropriate skills or to develop the necessary expertise could impair our ability to grow our business.

Our ability to compete may be adversely affected if we do not adequately protect our proprietary technologies or if we lose some of our intellectual property rights through costly litigation or administrative proceedings.

Our success will depend in part on our ability to obtain patents and maintain adequate protection of our intellectual property covering our technologies and products and potential products in the U.S. and other countries. We have adopted a strategy of seeking patent protection in the U.S. and in certain foreign countries with respect to certain of the technologies used in or relating to our products and processes. As such, as of December 31, 2014, we exclusively licensed rights to approximately 106 issued patents and filed patent applications in the U.S. and in various foreign jurisdictions, and we owned rights to approximately 409 issued patents and filed patent applications in the U.S. and in various foreign jurisdictions. When and if issued, patents would expire at the end of their term and any patent would only provide us commercial advantage for a limited period of time, if at all. Our patent applications are directed to our enabling technologies and to our methods and products which support our business in the advanced biofuels and renewable chemicals markets. We intend to continue to apply for patents relating to our technologies, methods and products as we deem appropriate.

Only approximately 33 of the patent applications that we have filed in the U.S. or in any foreign jurisdictions, and only certain of the patent applications filed by third parties in which we own rights, have been issued. A filed patent application does not guarantee a patent will issue and a patent issuing does not guarantee its validity, nor does it give us the right to practice the patented technology or commercialize the patented product. Third parties may have or obtain rights to "blocking patents" that could be used to prevent us from commercializing our products or practicing our technology. The scope and validity of patents and success in prosecuting patent applications involve complex legal and factual questions and, therefore, issuance, coverage and validity cannot be predicted with any certainty. Patents issuing from our filed applications may be challenged, invalidated or circumvented. Moreover, third parties could practice our inventions in secret and in territories where we do not have patent protection. Such third parties may then try to sell or import products made using our inventions in and into the U.S. or other territories and we may be unable to prove that such products were made using our inventions. Additional uncertainty may result from implementation of the Leahy-Smith America Invents Act, enacted in September 2011, as well as other potential patent reform legislation passed by the U.S. Congress and from legal precedent as handed down by the U.S. Court of Appeals for the Federal Circuit and the U.S. Supreme Court, as they determine legal issues concerning the scope, validity and construction of patent claims. Because patent applications in the U.S. and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publication of discoveries in the scientific literature often lags behind the actual discoveries, there is additional uncertainty as to the validity of any patents that may issue and the potential for "blocking patents" coming into force at some future date. Accordingly, we cannot ensure that any of our currently filed or future patent applications will result in issued patents, or even if issued, predict the scope of the claims that may issue in our and other companies' patents. Several of our issued patents are being challenged in regulatory proceedings before the USPTO. These proceedings may result in the claims being amended or canceled. If the claims are amended or canceled, the scope of our patents claims may be narrowed, which may reduce the scope of protection afforded by our patent portfolio. Given that the degree of future protection for our proprietary rights is uncertain, we cannot ensure that (i) we were the first to make the inventions covered by each of our filed applications, (ii) we were the first to file patent applications for these inventions, (iii) the proprietary technologies we develop will be patentable, (iv) any patents issued will be broad enough in scope to provide commercial advantage and prevent circumvention, and (v) competitors and other parties do not have or will not obtain patent protection that will block our development and commercialization activities.

These concerns apply equally to patents we have licensed, which may likewise be challenged, invalidated or circumvented, and the licensed technologies may be obstructed from commercialization by competitors' "blocking patents." In addition, we generally do not control the patent prosecution and maintenance of subject matter that we license from others. Generally, the licensors are primarily or wholly responsible for the patent prosecution and maintenance activities pertaining to the patent applications and patents we license, while we may only be afforded opportunities to comment on such activities. Accordingly, we are unable to exercise the same degree of control over licensed intellectual property as we exercise over our own intellectual property and we face the risk that our licensors will not prosecute or maintain it as effectively as we would like.

In addition, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our intellectual property is difficult, particularly where, as here, the end products reaching the market generally do not reveal the processes used in their manufacture, and particularly in certain foreign countries where the local laws may not protect our proprietary rights as fully as in the U.S., so we cannot be certain that the steps we have taken in obtaining intellectual property and other proprietary rights will prevent unauthorized use of our technology. If competitors are able to use our technology without our authorization, our ability to compete effectively could be adversely affected. Moreover, competitors and other parties such as universities may independently develop and obtain patents for technologies that are similar to or superior to our technologies. If that happens, the potential competitive advantages provided by our intellectual property may be adversely affected. We may then need to license these competing technologies, and we may not be able to obtain licenses on reasonable terms, if at all, which could cause material harm to our business. Accordingly, litigation may be necessary for us to assert claims of infringement, enforce patents we own or license, protect trade secrets or determine the enforceability, scope and validity of the intellectual property rights of others.

Our commercial success also depends in part on not infringing patents and proprietary rights of third parties, and not breaching any licenses or other agreements that we have entered into with regard to our technologies, products and business. We cannot be certain that patents have not or will not issue to third parties that could block our ability to obtain patents or to operate our business as we would like, or at all. There may be patents in some countries that, if valid, may block our ability to commercialize products in those countries if we are unsuccessful in circumventing or acquiring rights to these patents. There may also be claims in patent applications filed in some countries that, if granted and valid, may also block our ability to commercialize products or processes in these countries if we are unable to circumvent or license them.

As is commonplace in the biotechnology industries, some of our directors, employees and consultants are or have been employed at, or associated with, companies and universities that compete with us or have or will develop similar technologies and related intellectual property. While employed at these companies, these employees, directors and consultants may have been exposed to or involved in research and technology similar to the areas of research and technology in which we are engaged. Though we have not received such a complaint, we may be subject to allegations that we, our directors, employees or consultants have inadvertently or otherwise used, misappropriated or disclosed alleged trade secrets or confidential or proprietary information of those companies. Litigation may be necessary to defend against such allegations and the outcome of any such litigation would be uncertain.

Under some of our research agreements, our partners share joint rights in certain intellectual property we develop. For example, under our development agreement with ICM, we have exclusive rights to all intellectual property developed within the defined scope of the project, but all other intellectual property developed pursuant to the agreement is to be jointly owned. Such provisions may limit our ability to gain commercial benefit from some of the intellectual property we develop, and may lead to costly or time-consuming disputes with parties with whom we have commercial relationships over rights to certain innovations.

If any other party has filed patent applications or obtained patents that claim inventions also claimed by us, we may have to participate in interference, derivation or other proceedings declared by the USPTO to determine priority of invention and, thus, the right to the patents for these inventions in the U.S. These proceedings could result in substantial cost to us even if the outcome is favorable. Even if successful, such a proceeding may result in the loss of certain claims. Even successful outcomes of such proceedings could result in significant legal fees and other expenses, diversion of management time and efforts and disruption in our business. Uncertainties resulting from initiation and continuation of any patent or related litigation could harm our ability to compete.

If our biocatalysts, or the genes that code for our biocatalysts, are stolen, misappropriated or reverse engineered, others could use these biocatalysts or genes to produce competing products.

Third parties, including our contract manufacturers, customers and those involved in shipping our biocatalysts, may have custody or control of our biocatalysts. If our biocatalysts, or the genes that code for our biocatalysts, were stolen, misappropriated or reverse engineered, they could be used by other parties who may be able to reproduce these biocatalysts for their own commercial gain. If this were to occur, it would be difficult for us to discover or challenge this type of use, especially in countries with limited intellectual property protection.

We may not be able to enforce our intellectual property rights throughout the world.

The laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the U.S. Many companies have encountered significant problems in protecting and enforcing intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to bioindustrial technologies. This could make it difficult for us to stop the infringement of our patents or misappropriation of our other intellectual property rights. Proceedings to enforce our patents and other proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to enforce our intellectual property rights in such countries may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop.

Confidentiality agreements with employees and others may not adequately prevent disclosures of trade secrets and other proprietary information.

We rely in part on trade secret protection to protect our confidential and proprietary information and processes. However, trade secrets are difficult to protect. We have taken measures to protect our trade secrets and proprietary information, but these measures may not be effective. We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that know-how and inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. Nevertheless, these agreements may not be enforceable, our proprietary information may be disclosed, third parties could reverse engineer our biocatalysts and others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position. In addition, an unauthorized breach in our information technology systems may expose our trade secrets and other proprietary information to unauthorized parties.

We have received funding from U.S. government agencies, which could negatively affect our intellectual property rights.

Some of our research has been funded by grants from U.S. government agencies. When new technologies are developed with U.S. government funding, the government obtains certain rights in any resulting patents and technical data, generally including, at a minimum, a nonexclusive license authorizing the government to use the invention or technical data for noncommercial purposes. U.S. government funding must be disclosed in any resulting patent applications, and our rights in such inventions will normally be subject to government license rights, periodic progress reporting, foreign manufacturing restrictions and march-in rights. March-in rights refer to the right of the U.S. government, under certain limited circumstances, to require us to grant a license to technology developed under a government grant to a responsible applicant or, if we refuse, to grant such a license itself. March-in rights can be triggered if the government determines that we have failed to work sufficiently towards achieving practical application of a technology or if action is necessary to alleviate health or safety needs, to meet requirements of federal regulations or to give preference to U.S. industry. If we breach the terms of our grants, the government may gain rights to the intellectual property developed in our related research. The government's rights in our intellectual property may lessen its commercial value, which could adversely affect our performance.

Our government grants are subject to uncertainty, which could harm our business and results of operations.

We have received various government grants, including a cooperative agreement, to complement and enhance our own resources. We may seek to obtain government grants and subsidies in the future to offset all or a portion of the costs of Retrofitting existing ethanol manufacturing facilities and the costs of our research and development activities. We cannot be certain that we will be able to secure any such government grants or subsidies. Any of our existing grants or new grants that we may obtain may be terminated, modified or recovered by the granting governmental body under certain conditions.

We may also be subject to audits by government agencies as part of routine audits of our activities funded by our government grants. As part of an audit, these agencies may review our performance, cost structures and compliance with applicable laws, regulations and standards. Funds available under grants must be applied by us toward the research and development programs specified by the granting agencies, rather than for all of our programs generally. If any of our costs are found to be allocated improperly, the costs may not be reimbursed and any costs already reimbursed may have to be refunded. Accordingly, an audit could result in an adjustment to our revenues and results of operations.

We may face substantial competition, which could adversely affect our performance and growth.

We may face substantial competition in the markets for isobutanol, ethanol, polyester, rubber, plastics, fibers, other polymers and hydrocarbon fuels. Our competitors include companies in the incumbent petroleum-based industry as well as those in the nascent biorenewable industry. The incumbent petroleum-based industry benefits from a large established infrastructure, production capability and business relationships. The incumbents' greater resources and financial strength provide significant competitive advantages that we may not be able to overcome in a timely manner. Academic and government institutions may also develop technologies which will compete with us in the chemicals, solvents and blendstock markets.

The biorenewable industry is characterized by rapid technological change. Our future success will depend on our ability to maintain a competitive position with respect to technological advances. Technological development by others may impact the competitiveness of our products in the marketplace. Competitors and potential competitors who have greater resources and experience than we do may develop products and technologies that make ours obsolete or may use their greater resources to gain market share at our expense.

In the production of isobutanol, we face competition from Butamax. Additionally, a number of companies including Cathay Industrial Biotech, Ltd., Green Biologics Ltd., METabolic Explorer, S.A., Eastman Chemical Company (which acquired TetraVitae

Bioscience, Inc. in November 2011) and Cobalt Technologies, Inc. are developing n-butanol production capability from a variety of renewable feedstocks.

In the ethanol market, we operate in a highly competitive industry in the United States. According to the Renewable Fuels Association, there are over 200 ethanol facilities in the United States with an installed nameplate capacity of almost 15 billion gallons. Some of the key competitors in the United States include Archer-Daniels-Midland Company, POET, LLC, Valero Energy Corporation and Green Plains Renewable Energy, Inc. We also face competition from foreign producers of ethanol. Brazil is believed to be the world's second largest ethanol producing country. Many producers have much larger production capacities and operate at a lower cost of production than we do. As a result, these companies may be able to compete more effectively in narrower commodity margin environments.

In the polyester, rubber, plastics, fibers and other polymers markets, we face competition from incumbent petroleum-derived products, other renewable isobutanol producers and renewable n-butanol producers. Our competitive position versus the incumbent petroleum-derived products and other renewable butanol producers may not be favorable. Petroleum-derived products have dominated the market for many years and there is substantial existing infrastructure for production from petroleum sources, which may impede our ability to establish a position in these markets. Other isobutanol and n-butanol companies may develop technologies that prove more effective than our isobutanol production technology, or such companies may be more adept at marketing their production. Additionally, one small company in France, Global Bioenergies, S.A., is pursuing the production of isobutylene from renewable carbohydrates directly. Since conversion of isobutanol to butenes such as isobutylene is a key step in producing many polyester, rubber, plastics, fibers and other polymers from our isobutanol, this direct production of renewable isobutylene, if successful, could limit our opportunities in these markets.

In the gasoline blendstock market, we will compete with renewable ethanol producers (including those working to produce ethanol from cellulosic feedstocks), producers of alkylate from petroleum and producers of other blendstocks, all of whom may reduce our ability to obtain market share or maintain our price levels. For example, Coskata, Inc. is developing a hybrid thermochemical-biocatalytic process to produce ethanol from a variety of feedstocks. If any of these competitors succeed in producing blendstocks more efficiently, in higher volumes or offering superior performance than our isobutanol, our financial performance may suffer. Furthermore, if our competitors have more success marketing their products or reach development or supply agreements with major customers, our competitive position may also be harmed.

In the production of other biofuels, key competitors include Shell Oil Company, BP, DuPont-Danisco Cellulosic Ethanol LLC, Abengoa Bioenergy, S.A., POET, LLC, ICM, Mascoma Corporation, Inbicon A/S, INEOS New Planet BioEnergy LLC, Coskata, Inc., Archer Daniels Midland Company, BlueFire Ethanol, Inc., KL Energy Corporation, ZeaChem Inc., Iogen Corporation, Qteros, Inc., AE Biofuels, Inc. and many smaller startup companies. If these companies are successful in establishing low cost cellulosic ethanol or other fuel production, it could negatively impact the market for our isobutanol as a gasoline blendstock.

In the markets for the hydrocarbon fuels that we plan to produce from our isobutanol, we will face competition from the incumbent petroleum-based fuels industry. The incumbent petroleum-based fuels industry makes the vast majority of the world's gasoline, jet and diesel fuels and blendstocks. It is a mature industry with a substantial base of infrastructure for the production and distribution of petroleum-derived products. The size, established infrastructure and significant resources of many companies in this industry may put us at a substantial competitive disadvantage and delay or prevent the establishment and growth of our business in the market for hydrocarbon fuels.

Biofuels companies may also provide substantial competition in the hydrocarbon fuels market. With respect to production of renewable gasoline, biofuels competitors are numerous and include both large established companies and numerous startups. For example, Virent Energy Systems, Inc. has developed a process for making gasoline and gasoline blendstocks and Kior, Inc. has developed a technology platform to convert biomass into renewable crude oil. Many other competitors may do so as well. In the jet fuel market, we will face competition from companies such as Synthetic Genomics, Inc., Solazyme, Inc., Sapphire Energy, Inc. and Exxon-Mobil Corporation that are pursuing production of jet fuel from algae-based technology. Renewable Energy Group, Inc. and others are also targeting production of jet fuels from renewable biomass. We may also face competition from companies working to produce jet fuel from hydrogenated fatty acid methyl esters. In the diesel fuels market, competitors such as Amyris Biotechnologies, Inc. and Renewable Energy Group, Inc. have developed technologies for production of alternative hydrocarbon diesel fuel.

In the polyester, rubber, plastics, fibers and other polymers markets and the hydrocarbon fuels market, we expect to face vigorous competition from existing technologies. The companies we may compete with may have significantly greater access to resources, far more industry experience and/or more established sales and marketing networks. Additionally, since we do not plan to produce most of these products directly, we depend on the willingness of potential customers to purchase and convert our isobutanol into their products. These potential customers generally have well-developed manufacturing processes and arrangements with suppliers of the chemical components of their products and may have a resistance to changing these processes and components. These potential customers frequently impose lengthy and complex product qualification procedures on their suppliers, influenced by consumer preference, manufacturing considerations such as process changes and capital and other costs associated with transitioning to alternative components, supplier operating history, regulatory issues, product liability and other factors, many of which are unknown to, or not well understood by, us. Satisfying these processes may take many months or years. If we are unable to convince these potential customers that our isobutanol is comparable or superior to the alternatives that they currently use, we will not be successful in entering these markets and our business will be adversely affected.

We also face challenges in marketing our isobutanol. Though we intend to enhance our competitiveness through partnerships and joint development agreements, some competitors may gain an advantage by securing more valuable partnerships for developing their hydrocarbon products than we are able to obtain. Such partners could include major petrochemical, refiner or end-user companies. Additionally, petrochemical companies may develop alternative pathways for hydrocarbon production that may be less expensive, and may utilize more readily available infrastructure than that used to convert our isobutanol into hydrocarbon products.

We plan to enter into partnerships through which we will sell significant volumes of our isobutanol to partners who will convert it into useful hydrocarbons or use it as a fuel or as a gasoline blendstock. However, if any of these partners instead negotiate supply agreements with other buyers for the isobutanol they purchase from us, or sell it into the open market, they may become competitors of ours in the field of isobutanol sales. This could significantly reduce our profitability and hinder our ability to negotiate future supply agreements for our isobutanol, which could have an adverse effect on our performance.

Our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to and/or are less expensive than other products on the market. Many of our competitors have substantially greater production, financial, research and development, personnel and marketing resources than we do. In addition, certain of our competitors may also benefit from local government subsidies and other incentives that are not available to us. As a result, our competitors may be able to develop competing and/or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. As more companies develop new intellectual property in our markets, the possibility of a competitor acquiring patent or other rights that may limit our products or potential products increases, which could lead to litigation. Furthermore, to secure purchase agreements from certain customers, we may be required to enter into exclusive supply contracts, which could limit our ability to further expand our sales to new customers. Likewise, major potential customers may be locked into long-term, exclusive agreements with our competitors, which could inhibit our ability to compete for their business.

In addition, various governments have recently announced a number of spending programs focused on the development of clean technologies, including alternatives to petroleum-based fuels and the reduction of carbon emissions. Such spending programs could lead to increased funding for our competitors or a rapid increase in the number of competitors within those markets.

Our limited resources relative to many of our competitors may cause us to fail to anticipate or respond adequately to new developments and other competitive pressures. This failure could reduce our competitiveness and market share, adversely affect our results of operations and financial position and prevent us from obtaining or maintaining profitability.

Business interruptions could delay us in the process of developing our products and could disrupt our sales.

We are vulnerable to natural disasters and other events that could disrupt our operations, such as riots, civil disturbances, war, terrorist acts, floods, infections in our laboratory or production facilities or those of our contract manufacturers and other events beyond our control. We do not have a detailed disaster recovery plan. In addition, we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our cash flows and success as an overall business. Furthermore, ICM may terminate our commercialization agreement if a force majeure event interrupts our operations for a specified period of time.

We engage in hedging transactions, which could harm our business.

We have engaged in hedging transactions to offset some of the effects of volatility in commodity prices. We have generally followed a policy of using exchange-traded futures contracts to reduce our net position in agricultural commodity inventories and forward purchase contracts to manage price risk. Hedging activities may cause us to suffer losses, such as if we purchase a position in a declining market or sell a position in a rising market. Furthermore, hedging exposes us to the risk that we may have under- or over-estimated our need for a specific commodity or that the other party to a hedging contract may default on its obligation. If there are significant swings in commodity prices, or if we purchase more corn for future delivery than we can process, we may have to pay to terminate a futures contract, resell unneeded corn inventory at a loss, or produce our products at a loss, all of which would have a material adverse effect on our financial performance. We may vary the hedging strategies we undertake, which could leave us more vulnerable to increases in commodity prices or decreases in the prices of isobutanol, distiller's grains, iDGs™ or ethanol. Losses from hedging activities and changes in hedging strategy could have a material adverse effect on our operations.

Ethical, legal and social concerns about genetically engineered products and processes, and similar concerns about feedstocks grown on land that could be used for food production, could limit or prevent the use of our products, processes and technologies and limit our revenues.

Some of our processes involve the use of genetically engineered organisms or genetic engineering technologies. Additionally, our feedstocks may be grown on land that could be used for food production, which subjects our feedstock sources to "food versus fuel" concerns. If we are not able to overcome the ethical, legal and social concerns relating to genetic engineering or food versus fuel, our products and processes may not be accepted. Any of the risks discussed below could result in increased expenses, delays or other impediments to our programs or the public acceptance and commercialization of products and processes dependent on our technologies or inventions.

Our ability to develop and commercialize one or more of our technologies, products, or processes could be limited by the following factors:

- public attitudes about the safety and environmental hazards of, and ethical concerns over, genetic research and genetically engineered products and processes, which could influence public acceptance of our technologies, products and processes;
- public attitudes regarding and potential changes to laws governing ownership of genetic material, which could harm our intellectual property rights with respect to our genetic material and discourage others from supporting, developing or commercializing our products, processes and technologies;
- public attitudes and ethical concerns surrounding production of feedstocks on land which could be used to grow food, which could influence public acceptance of our technologies, products and processes;
- governmental reaction to negative publicity concerning genetically engineered organisms, which could result in greater government regulation of genetic research and derivative products; and
- governmental reaction to negative publicity concerning feedstocks produced on land which could be used to grow food, which could result in greater government regulation of feedstock sources.

The subjects of genetically engineered organisms and food versus fuel have received negative publicity, which has aroused public debate. This adverse publicity could lead to greater regulation and trade restrictions on imports of genetically engineered products or feedstocks grown on land suitable for food production.

The biocatalysts that we develop have significantly enhanced characteristics compared to those found in naturally occurring enzymes or microbes. While we produce our biocatalysts only for use in a controlled industrial environment, the release of such biocatalysts into uncontrolled environments could have unintended consequences. Any adverse effect resulting from such a release could have a material adverse effect on our business and financial condition, and we may be exposed to liability for any resulting harm.

Compliance with stringent laws and regulations may be time consuming and costly, which could adversely affect the commercialization of our biofuels products and related co-products.

Any biofuels developed using our technologies will need to meet a significant number of regulations and standards, including regulations imposed by the U.S. Department of Transportation, the EPA, the FDA, the FAA, various state agencies and others. Any failure to comply, or delays in compliance, with the various existing and evolving industry regulations and standards could prevent or delay the commercialization of any biofuels developed using our technologies and subject us to fines and other penalties.

We use hazardous materials in our business and we must comply with environmental laws and regulations. Any claims relating to improper handling, storage or disposal of these materials or noncompliance with applicable laws and regulations could be time consuming and costly and could adversely affect our business and results of operations.

Our research and development processes involve the use of hazardous materials, including chemical, radioactive and biological materials. Our operations also produce hazardous waste. We cannot eliminate entirely the risk of accidental contamination or discharge and any resultant injury from these materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of, and human exposure to, these materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our total assets. Although we believe that our activities conform in all material respects with environmental laws, there can be no assurance that violations of environmental, health and safety laws will not occur in the future as a result of human error, accident, equipment failure or other causes. Compliance with applicable environmental laws and regulations may be expensive, and the failure to comply with past, present, or future laws could result in the imposition of fines, third-party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production or a cessation of operations, and our liability may exceed our total assets. Liability under environmental laws can be joint and several and without regard to comparative fault. Environmental laws could become more stringent over time imposing greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business.

As isobutanol has not previously been used as a commercial fuel in significant amounts, its use subjects us to product liability risks, and we may have difficulties obtaining product liability insurance.

Isobutanol has not previously been used as a commercial fuel and research regarding its impact on engines and distribution infrastructure is ongoing. Though we intend to test our isobutanol further before its commercialization, there is a risk that it may damage engines or otherwise fail to perform as expected. If isobutanol degrades the performance or reduces the lifecycle of engines, or causes them to fail to meet emissions standards, market acceptance could be slowed or stopped, and we could be subject to product liability claims. Furthermore, due to isobutanol's lack of commercial history as a fuel, we are uncertain as to whether we will be able to acquire product liability insurance on reasonable terms, or at all. A significant product liability lawsuit could substantially impair our production efforts and could have a material adverse effect on our business, reputation, financial condition and results of operations.

During the ordinary course of business, we may become subject to lawsuits or indemnity claims, which could materially and adversely affect our business and results of operations.

From time to time, we may in the ordinary course of business be named as a defendant in lawsuits, claims and other legal proceedings. These actions may seek, among other things, compensation for alleged personal injury, worker's compensation, employment discrimination, breach of contract, property damages, civil penalties and other losses of injunctive or declaratory relief. In the event that such actions or indemnities are ultimately resolved unfavorably at amounts exceeding our accrued liability, or at material amounts, the outcome could materially and adversely affect our reputation, business and results of operations. In addition, payments of significant amounts, even if reserved, could adversely affect our liquidity position.

We may not be able to use some or all of our net operating loss carry-forwards to offset future income.

We have net operating loss carryforwards due to prior period losses, which if not utilized will begin to expire at various times over the next 20 years. If we are unable to generate sufficient taxable income to utilize our net operating loss carryforwards, these carryforwards could expire unused and be unavailable to offset future income tax liabilities.

In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, a corporation that undergoes an "ownership change" (generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period) is subject to limitation on its ability to utilize its pre-change net operating loss carry-forwards, or net operating losses, to offset future taxable income. We may have experienced one or more ownership changes in prior years, and the issuance of shares in connection with our initial public offering may itself have triggered an ownership change. In addition, future changes in our stock ownership, which may be outside of our control, may trigger an ownership change, as may future equity offerings or acquisitions that have equity as a component of the purchase price. If an ownership change has occurred or does occur in the future, our ability to utilize our net operating losses to offset income if we attain profitability may be limited.

Enacted and proposed changes in securities laws and regulations have increased our costs and may continue to increase our costs in the future.

In recent years, there have been several changes in laws, rules, regulations and standards relating to corporate governance and public disclosure, including the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank Act"), the Sarbanes-Oxley Act of 2002 and various other new regulations promulgated by the SEC and rules promulgated by the national securities exchanges.

The Dodd-Frank Act, enacted in July 2010, expands federal regulation of corporate governance matters and imposes requirements on publicly-held companies, including us, to, among other things, provide stockholders with a periodic advisory vote on executive compensation and also requires compensation committee reforms and enhanced pay-for-performance disclosures. While some provisions of the Dodd-Frank Act are effective upon enactment, others will be implemented upon the SEC's adoption of related rules and regulations. The scope and timing of the adoption of such rules and regulations is uncertain and accordingly, the cost of compliance with the Dodd-Frank Act is also uncertain.

These and other new or changed laws, rules, regulations and standards are, or will be, subject to varying interpretations in many cases due to their lack of specificity. As a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies, which could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. Our efforts to comply with evolving laws, regulations and standards are likely to continue to result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. Further, compliance with new and existing laws, rules, regulations and standards may make it more difficult and expensive for us to maintain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. Members of our board of directors and our principal executive officer and principal financial officer could face an increased risk of personal liability in connection with the performance of their duties. As a result, we may have difficulty attracting and retaining qualified directors and executive officers, which could harm our business. We continually evaluate and monitor regulatory developments and cannot estimate the timing or magnitude of additional costs we may incur as a result of such developments.

If we fail to maintain an effective system of internal controls, we might not be able to report our financial results accurately or prevent fraud; in that case, our stockholders could lose confidence in our financial reporting, which would harm our business and could negatively impact the price of our stock.

Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. In addition, Section 404 of the Sarbanes-Oxley Act of 2002 (“Section 404”) requires us to evaluate and report on our internal control over financial reporting and have our principal executive officer and principal financial officer certify as to the accuracy and completeness of our financial reports. The process of maintaining our internal controls and complying with Section 404 is expensive and time consuming, and requires significant attention of management. We cannot be certain that these measures will ensure that we maintain adequate controls over our financial processes and reporting in the future. Even if we conclude that our internal control over financial reporting provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, because of their inherent limitations, our internal controls over financial reporting may not prevent or detect fraud or misstatements. Failure to maintain required controls or implement new or additional controls as circumstances warrant, or difficulties encountered in maintaining or implementing controls, could harm our results of operations or cause us to fail to meet our reporting obligations.

Our management has concluded that the Company’s disclosure controls and procedures were not effective as of December 31, 2014 because of a material weakness in accounting for certain non-routine aspects of the underwritten public offering completed in August 2014 (“August Offering”). Notwithstanding the material weakness that existed as of December 31, 2014, management has concluded that the consolidated financial statements included in this report present fairly, in all material respects, the financial position, results of operations and cash flows of the Company in accordance with accounting principles generally accepted in the United States of America (“GAAP”). Management is currently addressing this material weakness in internal control over financial reporting and is committed to remediating it as expeditiously as possible. Gevo is implementing enhanced controls and policies with respect to the review and analysis of all working papers of non-routine transactions such as the August Offering. Management believes that there are no material inaccuracies or omissions of material fact in the Company’s financial statements and, to the best of its knowledge, believes that the consolidated financial statements for the year ended December 31, 2014 fairly present in all material respects the Company’s financial position, results of operations, and cash flows in accordance with GAAP.

However, if our remedial measures are insufficient to address the material weakness, or if we, or our independent registered public accounting firm, discover an additional material weakness, the disclosure of that fact, even if quickly remedied, could reduce the market’s confidence in our financial statements and harm our stock price. In addition, a delay in compliance with Section 404 would subject us to a variety of administrative sanctions, including SEC action, ineligibility for short form resale registration, the suspension or delisting of our common stock from the stock exchange on which it is listed and the inability of registered broker-dealers to make a market in our common stock, which would further reduce our stock price and could harm our business.

Certain Risks Related to Owning our Securities

We have substantial indebtedness outstanding and may incur additional indebtedness in the future. Our indebtedness exposes us to risks that could adversely affect our business, financial condition and results of operations.

As of December 31, 2014, the aggregate amount of the outstanding principal and final payments under our amended and restated loan and security agreement with TriplePoint Capital LLC (“TriplePoint”) was approximately $0.8 million and we had $26.1 million in outstanding 2017 Notes, which were issued to WB Gevo, Ltd. ("Whitebox") in June 2014, and $26.9 million in outstanding 2022 Notes, which were issued in July 2012. In addition, we and any current and future subsidiaries of ours may incur substantial additional debt in the future, subject to the specified limitations in our existing financing documents and the indentures governing the Convertible Notes. If new debt is added to our or any of our subsidiaries' debt levels, the risks described in this "Certain Risks Related to Owning Our Securities" section could intensify.

Our current and future indebtedness could have significant negative consequences for our business, financial condition and results of operations, including:

- increasing our vulnerability to adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- requiring the dedication of a substantial portion of our cash flow from operations to service our indebtedness, thereby reducing the amount of our cash flow available for other purposes;
- limiting our flexibility in planning for, or reacting to, changes in our business; and

- placing us at a possible competitive disadvantage with less leveraged competitors and competitors that may have better access to capital resources.

We cannot assure you that we will continue to maintain sufficient cash reserves or that our business will generate cash flow from operations at levels sufficient to permit us to pay principal, premium, if any, and interest on our indebtedness, or that our cash needs will not increase. If we are unable to generate sufficient cash flow or otherwise obtain funds necessary to make required payments, or if we fail to comply with the various requirements of our existing indebtedness or any other indebtedness which we may incur in the future, we would be in default, which could permit the holders of our indebtedness, including the Convertible Notes, to accelerate the maturity of such indebtedness. Any default under such indebtedness could have a material adverse effect on our business, results of operations and financial condition.

In particular, our indebtedness with Whitebox and TriplePoint is secured by liens on substantially all of our assets, including our intellectual property. If we are unable to satisfy our obligations under such instruments, Whitebox or TriplePoint, as applicable, could foreclose on our assets, including our intellectual property. Any such foreclosure could force us to substantially curtail or cease our operations which could have a material adverse effect on our business, financial condition and results of operations.

Our stock price may be volatile, and your investment in our securities could suffer a decline in value.

The market price of shares of our common stock has experienced significant price and volume fluctuations. For example, since February 19, 2011, when we became a public company, the closing sales price for one share of our common stock has reached a high of $26.36 and a low of $0.12.

We cannot predict whether the price of our common stock will rise or fall. A variety of factors may have a significant effect on our stock price, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- the position of our cash and cash equivalents;
- actual or anticipated changes in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors’ operating results or changes in their growth rate;
- announcements of technological innovations by us, our partners or our competitors;
- announcements by us, our partners or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- the entry into, modification or termination of licensing arrangements, marketing arrangements, and/or research, development, commercialization, supply, off-take or distribution arrangements;
- our ability to consistently produce commercial quantities of isobutanol at the Agri-Energy Facility and ramp up production to nameplate capacity;
- additions or losses of customers;
- commodity prices, including oil, ethanol and corn prices;
- additions or departures of key management or scientific personnel;
- competition from existing products or new products that may emerge;
- issuance of new or updated research reports by securities or industry analysts;
- fluctuations in the valuation of companies perceived by investors to be comparable to us;
- litigation involving us, our general industry or both;
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disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;

- our ability to raise the funds that will be required to continue to defend our freedom to operate in light of the Butamax litigation or, if necessary, to successfully change our business strategy as a result of such litigation;
- changes in existing laws, regulations and policies applicable to our business and products, including the Renewable Fuel Standard ("RFS") program, and the adoption of or failure to adopt carbon emissions regulation;
- announcements or expectations of additional financing efforts or the pursuit of strategic alternatives;

- sales of our common stock or equity-linked securities, such as warrants, by us or our stockholders;
- share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;
- general market conditions in our industry; and
- general economic and market conditions, including the recent financial crisis.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock, regardless of our operating performance, and cause the value of your investment to decline. Because the Convertible Notes are convertible into our common stock and the warrants are exercisable into our common stock, volatility or a reduction in the market price of our common stock could have an adverse effect on the trading price of the Convertible Notes and the warrants. Holders who receive common stock upon conversion of the Convertible Notes or exercise of the warrants will also be subject to the risk of volatility and a reduction in the market price of our common stock. In addition, the existence of the Convertible Notes and our outstanding warrants, may encourage short selling in our common stock by market participants because the conversion of the Convertible Notes or exercise of the warrants could depress the price of our common stock.

Additionally, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation or other derivative shareholder lawsuits. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management’s attention from other business concerns, which could seriously harm our business regardless of the outcome.

The price of our common stock could also be affected by possible sales of common stock by investors who view the Convertible Notes or warrants as a more attractive means of equity participation in us and by hedging or arbitrage activity involving our common stock. The hedging or arbitrage could, in turn, affect the trading prices of the Convertible Notes and warrants, or any common stock that holders receive upon conversion of the Convertible Notes or exercise of the warrants.

Sales of a substantial number of shares of our common stock or securities linked to our common stock, such as the Convertible Notes and warrants, in the public market could occur at any time. These sales, or the perception in the market that such sales may occur, could reduce the market price of our common stock.

As of February 3, 2015, stockholders who beneficially own more than 5% of our outstanding common stock, which consists of four stockholders, collectively have beneficial ownership of approximately 37.3% of our outstanding common stock. If one or more of them were to sell a substantial portion of the shares they hold, it could cause our stock price to decline. Moreover, certain holders of our outstanding common stock (including shares of our common stock issuable upon the conversion of certain Convertible Notes or upon exercise of certain outstanding warrants) have rights, subject to certain conditions, to require us to file registration statements covering their shares and to include their shares in registration statements that we may file for ourselves or other stockholders.

Future issuances of our common stock or instruments convertible or exercisable into our common stock, including in connection with conversions of Convertible Notes or exercises of warrants, may materially and adversely affect the price of our common stock and cause dilution to our existing stockholders.

We may obtain additional funds through public or private debt or equity financings in the near future, subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint. If we issue additional shares of common stock or instruments convertible into common stock, it may materially and adversely affect the price of our common stock. In addition, the conversion of some or all of the

Convertible Notes and/or the exercise of some or all of the warrants may dilute the ownership interests of our stockholders, and any sales in the public market of any of our common stock issuable upon such conversion or exercise could adversely affect prevailing market prices of our common stock. Additionally, under the terms of certain warrants, in the event that a warrant is exercised at a time when we do not have an effective registration statement covering the underlying shares of common stock on file with the SEC, such warrant must be net exercised, which will dilute the ownership interests of existing stockholders without any corresponding benefit to the Company of a cash payment for the exercise price of such warrant.

As of December 31, 2014, we had $26.9 million in outstanding 2022 Notes, which were convertible into 17,707,147 shares of common stock at the conversion rate in effect on December 31, 2014 (which amount includes 12,981,633 shares of common stock issuable in full satisfaction of the coupon make-whole payments due in connection therewith). The anticipated conversion of the $26.9 million in outstanding 2022 Notes into shares of our common stock could depress the trading price of our common stock. In addition, we have the option to issue common stock to any converting holder in lieu of making any required coupon make-whole payment in cash. If we elect to issue our common stock for such payment, the stock will be valued at 90% of the simple average of the daily volume weighted average prices of our common stock for the 10 trading days ending on and including the trading day immediately preceding the conversion date. If our stock price decreases, the number of shares we would be required to deliver in connection with the coupon make-whole payments would increase. Given that the agreements governing our indebtedness, including our secured indebtedness with TriplePoint, may prohibit us from paying, repurchasing or redeeming the 2022 Notes or making cash payments in respect of the coupon make-whole payments due upon a conversion, we may be unable to make such payment in cash. If we issue additional shares of our common stock in satisfaction of such payments, this may cause significant additional dilution to our existing stockholders.

As of December 31, 2014, we had $26.1 million in outstanding 2017 Notes, which were convertible into 28,322,932 shares of our common stock at the conversion rate in effect on December 31, 2014. On January 29, 2015, we commenced a conversion forbearance period in accordance with the terms of the 2017 Notes during which neither the Company nor any holder of the 2017 Notes will have the right to convert any principal amount of the 2017 Notes into shares of the Company's common stock. The conversion forbearance period will terminate when the Company provides notice to the trustee for the 2017 Notes that it has a sufficient number of authorized and unissued shares of common stock to permit conversion of all outstanding 2017 Notes; provided, that it will be an event of default under the terms of the 2017 Notes if, on June 27, 2015, the conversion forbearance period has not been terminated and the Company has failed to reserve, free from preemptive rights, out of its authorized but unissued shares or shares held in treasury, sufficient shares of common stock to provide for the conversion of all of the outstanding 2017 Notes.

The terms of the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint and the indentures governing the Convertible Notes, may restrict our ability to engage in certain transactions.

The terms of the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint and the indentures governing the Convertible Notes, may prohibit us from engaging in certain actions, including disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain kinds of additional indebtedness, acquiring or merging with other entities, or making dividends and other restricted payments unless we receive the prior approval of the requisite lenders or the requisite holders of the Convertible Notes. If we are unable to obtain such approval, we could be prohibited from engaging in transactions which could be beneficial to our business and our stockholders or could be forced to repay such indebtedness in full.

The indentures governing the Convertible Notes may prohibit us from engaging in certain mergers or acquisitions and if a fundamental change of the Company occurs prior to the maturity date of the Convertible Notes, holders of the Convertible Notes will have the right, at their option, to require us to repurchase all or a portion of their Convertible Notes and, in certain circumstances, to pay the holders of Convertible Notes a make-whole payment equal to the aggregate amount of interest that would have been payable on such Convertible Notes from the repurchase date through the maturity date of such Convertible Notes. With respect to the 2022 Notes, if a fundamental change occurs prior to the maturity date of the 2022 Notes, we will in some cases be required to increase the conversion rate for a holder that elects to convert its 2022 Notes in connection with such fundamental change. With respect to the 2017 Notes, the Company has the right to increase the conversion rate of the 2017 Notes by any amount for a period of at least 20 business days if the Company's board of directors determines that such increase would be in the Company's best interest. In addition, if an extraordinary transaction occurs, holders of warrants will have the right, at their option, to require us to repurchase the unexercised portion of such warrants for an amount in cash equal to the value of the warrants, as determined in accordance with the Black Scholes option pricing model and the terms of the warrants. These and other provisions could prevent or deter a third party from acquiring us, even where the acquisition could be beneficial to you.

The conversion or exercise prices, as applicable, of the Convertible Notes and warrants can fluctuate under certain circumstances which, if triggered, can result in potentially material further dilution to our stockholders.

The conversion price of the 2022 Notes can fluctuate in certain circumstances, including in the event that we undertake certain stock dividends, splits, combinations or distributions, or if there is a fundamental change prior to the maturity date of the 2022 Notes. In such instances, the conversion price of the 2022 Notes can fluctuate materially lower than the initial conversion price of $5.69 per share. The conversion price of the 2017 Notes can fluctuate in certain circumstances, including in the event that there is a dividend or distribution paid on shares of our common stock or a subdivision, combination or reclassification of our common stock. In such instances, the conversion price of the 2017 Notes can fluctuate materially lower than the initial conversion price of $1.1584 per share.

The number of shares of common stock for which certain of our warrants are exercisable may be adjusted in the event that we undertake certain stock dividends, splits, combinations, distributions, and the price at which such shares of common stock may be purchased upon exercise of the warrants may be adjusted in the event that we undertake certain issuances of common stock or convertible securities at prices lower than the then-current exercise price for the warrants. These provisions could result in substantial dilution to investors in our common stock.

The interest rates of the Convertible Notes can fluctuate under certain circumstances which, if triggered, can result in potentially material further dilution to our stockholders.

The interest rates of the Convertible Notes can fluctuate in certain circumstances, including in the event of a default of our obligations under the indentures governing the Convertible Notes or the registration rights agreements, if any, entered into in connection with such notes. In addition, the interest on the 2017 Notes will be payable 50% in cash and 50% in kind if (i) no event of default has occurred and is continuing under the indentures governing the 2017 Notes and (ii) the last reported sales price of our common stock on the 10th trading day immediately preceding the relevant interest payment date is more than $1.10 per share. As the Company may be required to pay a portion of the interest on the 2017 Notes in kind, by either increasing the principal amount of the outstanding 2017 Notes or issuing additional 2017 Notes, any increase to the interest rate applicable to the 2017 Notes could result in additional dilution to investors in our common stock.

We may not have the ability to pay interest on the Convertible Notes or to repurchase or redeem the Convertible Notes.

If a fundamental change (as defined in the indentures governing the Convertible Notes) occurs, holders of the Convertible Notes may require us to repurchase, for cash, all or a portion of their Convertible Notes. In such circumstance we would be required to offer to repurchase the Convertible Notes at 100% plus accrued and unpaid interest, to, but not including, the repurchase date. We would also be required to pay the holders of the 2017 Notes a fundamental change make-whole payment equal to the aggregate amount of interest that would have otherwise been payable on such notes through, but not including, the maturity date of such notes. If we elect to redeem the Convertible Notes prior to their maturity, the redemption price of any Convertible Notes redeemed by us will be paid for in cash. Our ability to pay the interest on the Convertible Notes, to repurchase or redeem the Convertible Notes, to refinance our indebtedness and to fund working capital needs and planned capital expenditures depends on our ability to generate cash flow in the future. To some extent, this is subject to general economic, financial, competitive, legislative and regulatory factors and other factors that are beyond our control. We cannot assure you that we will maintain sufficient cash reserves or that our business will generate cash flow from operations at levels sufficient to permit us to pay the interest on the Convertible Notes, to repurchase or redeem the Convertible Notes or to pay any cash amounts that may become due upon conversion of the Convertible Notes, or that our cash needs will not increase. In addition, any such repurchase or redemption of the Convertible Notes, even if such action would be in our best interests, may result in a default under the agreements governing our indebtedness, including our secured indebtedness with TriplePoint, unless we are able to obtain the applicable lender’s consent prior to the taking of such action.

Our failure to repurchase tendered Convertible Notes at a time when the repurchase is required by the indenture governing such notes would constitute a default under such notes and would permit holders of such notes to accelerate our obligations under such notes. Such default may also lead to a default under the agreements governing any of our current and future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay such indebtedness and repurchase the Convertible Notes or make cash payments upon conversions thereof.

If we are unable to generate sufficient cash flow from operations in the future to service our indebtedness and meet our other needs, we may have to refinance all or a portion of our indebtedness, obtain additional funds through public or private debt or equity financings, reduce expenditures or sell assets that we deem necessary to our business. Our ability to take some or all of these actions will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint, and we cannot assure you that any of these measures would be possible or that any additional financing could be obtained on favorable terms, or at all. The inability to obtain additional financing on commercially reasonable terms could have a material adverse effect on our financial condition, which could cause the value of your investment to decline. Additionally, if we were to conduct a public or private offering of securities, any new offering would be likely to dilute our stockholders' equity ownership.

The issuance of share-based payment awards under our stock incentive plan may cause dilution to our existing stockholders and may affect the market price of our common stock.

We have used, and in the future we may continue to use, stock options, stock grants and other equity-based incentives, either pursuant to the 2010 Plan, or outside of the 2010 Plan, to provide motivation and compensation to our directors, officers, employees and key independent consultants. The award of any such incentives will result in an immediate and potentially substantial dilution to our existing shareholders and could result in a decline in the value of our stock price.

As of December 31, 2014, there were 3,524,413 shares subject to outstanding options that are or will become eligible for sale in the public market to the extent permitted by any applicable vesting requirements and Rules 144 and 701 under the Securities Act. The exercise of these options and the sale of the underlying shares of common stock and the sale of stock issued pursuant to stock grants may have an adverse effect upon the price of our common stock, which in turn may have an adverse effect upon the trading price of the warrants.

As of December 31, 2014, there were 1,481,824 shares of common stock available for future grant under our 2010 Plan and 1,150,939 shares of common stock available for future grant under our Employee Stock Purchase Plan. These shares can be freely sold in the public market upon issuance and once vested.

We may pay vendors in stock as consideration for their services; this may result in additional costs and may cause dilution to our existing stockholders.

In order for us to preserve our cash resources, we may in the future pay vendors, including technology partners, in shares, warrants or options to purchase shares of our common stock rather than cash. Payments for services in stock may materially and adversely affect our stockholders by diluting the value of outstanding shares of our common stock. In addition, in situations where we agree to register the shares issued to a vendor, this will generally cause us to incur additional expenses associated with such registration.

Holders of our warrants will have no rights as a common stockholder until such holders exercise their warrants and acquire our common stock.

Until holders of our warrants acquire shares of our common stock upon exercise of the warrants, the holders will have no rights with respect to the shares of our common stock underlying such warrants, except for those rights set forth in the applicable warrant agreements. Upon exercise of the warrants, warrant holders will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

The exercise price for our warrants will not be adjusted for all dilutive events.

The exercise price for our warrants is subject to adjustment for certain events, including the issuance of stock dividends on our common stock and, in certain instances, the issuance of our common stock at a price per share less than the exercise price of the warrants. However, the exercise price will not be adjusted for other events, including the issuance of certain rights, options or warrants, distributions of capital stock, indebtedness, or assets and cash dividends. Accordingly, an event that adversely affects the value of the warrants may occur, and that event may not result in an adjustment to the exercise price.

We may not be permitted by the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint, to repurchase certain series of our warrants, and we may not have the ability to do so.

Under certain circumstances, if an extraordinary transaction (as defined in certain series of our warrants) occurs, holders of the warrants may require us to repurchase, for cash, the remaining unexercised portion of such warrants for an amount of cash equal to the value of the warrant as determined in accordance with the Black Scholes option pricing model and the terms of the warrants. Our ability to repurchase the warrants depends on our ability to generate cash flow in the future. To some extent, this is subject to general economic, financial, competitive, legislative and regulatory factors and other factors that are beyond our control. We cannot assure you that we will maintain sufficient cash reserves or that our business will generate cash flow from operations at levels sufficient to permit us to repurchase the warrants. In addition, any such repurchase of the warrants may result in a default under the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint, unless we are able to obtain such lender’s consent prior to the taking of such action. If we were unable to obtain such consent, compliance with the terms of the warrants would trigger an event of default under such agreements.

Concentration of ownership among our affiliates may prevent other stockholders from influencing significant corporate decisions and depress our stock price.

Our affiliates who held our common stock as of February 3, 2015 together control approximately 16.5% of our outstanding common stock, with a single stockholder, Khosla Ventures I, L.P. and its affiliates, controlling approximately 8.6% of our outstanding common stock. If our affiliates or a group of our affiliates act together, they will be able to exert a significant degree of influence over our management and affairs and control matters requiring stockholder approval, including the election of directors and approval of mergers or other business combination transactions. The interests of this concentration of ownership may not always coincide with our interests or the interests of other stockholders. For instance, our affiliates, acting together, could cause us to enter into transactions or agreements that we would not otherwise consider. Similarly, this concentration of ownership may have the effect of delaying or preventing a change in control of the Company otherwise favored by our other stockholders and holders of warrants. This concentration of ownership could depress our stock price, which would in turn depress the trading price of the common stock and warrants.

We do not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment.

Under the terms of the agreements governing our indebtedness with TriplePoint, subject to certain limited exceptions, Agri-Energy is only permitted to pay dividends if the following conditions are satisfied: (i) the Retrofit of the Agri-Energy Facility is complete and the facility is producing commercial volumes of isobutanol, (ii) its net worth is greater than or equal to $10.0 million, and (iii) no event of default has occurred and is continuing under the agreement. Agri-Energy is also permitted to make dividends and distributions to Gevo, Inc. for certain defined purposes related to the Convertible Notes. Accordingly, even if we decide to pay cash dividends in the future, we may not be able to access cash generated by Agri-Energy if amounts are then outstanding pursuant to such agreements.

We have never paid cash dividends on our common stock and we do not expect to pay cash dividends on our common stock at any time in the foreseeable future because such payments are prohibited by the terms of the agreements governing our indebtedness with Whitebox and TriplePoint. As a result, only appreciation of the price of our common stock, which may never occur, will provide a return to stockholders. Investors seeking cash dividends should not invest in our common stock.

If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our stock price and trading volume could decline. The trading market for our common stock will be influenced by the research and reports that securities or industry analysts publish about us or our business.

We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our stock or change their opinion of our stock, our stock price would likely decline which in turn would likely cause a decline in the value of the warrants and the Convertible Notes. If one or more of these analysts cease coverage of the Company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price and the price of the warrants and Convertible Notes to decline or the trading volume of such securities to decline.

We are subject to anti-takeover provisions in our amended and restated certificate of incorporation, as amended (our "Certificate of Incorporation"), and amended and restated bylaws and under Delaware law, that could delay or prevent an acquisition of the Company, even if the acquisition would be beneficial to our stockholders.

Provisions in our Certificate of Incorporation and our amended and restated bylaws may delay or prevent an acquisition of us. Among other things, our Certificate of Incorporation and amended and restated bylaws provide for a board of directors that is divided into three classes with staggered three-year terms, provide that all stockholder action must be effected at a duly called meeting of the stockholders and not by a consent in writing, and further provide that only our board of directors may call a special meeting of the stockholders. These provisions may also frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management team. Furthermore, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits, with some exceptions, stockholders owning in excess of 15% of our outstanding voting stock from merging or combining with us. Finally, our charter documents establish advance notice requirements for nominations for election to our board of directors and for proposing matters that can be acted upon at stockholder meetings. Although we believe these provisions together provide an opportunity to receive higher bids by requiring potential acquirers to negotiate with our board of directors, they would apply even if an offer to acquire the Company may be considered beneficial by some stockholders.

Our common stock may be delisted from the NASDAQ Capital Market, which could affect its market price and liquidity.

We are required to continually meet the listing requirements of the NASDAQ Capital Market (including a minimum bid price for our common stock of $1.00 per share) to maintain the listing of our common stock on the NASDAQ Capital Market.

Prior to January 5, 2015, our common stock was listed on the NASDAQ Global Market. On June 30, 2014, we received a deficiency letter from the Listing Qualifications Department of the NASDAQ Stock Market, notifying us that, for the prior 30 consecutive business days, the closing bid price of our common stock was not maintained at the minimum required closing bid price of at least $1.00 per share as required for continued listing on the NASDAQ Global Market. In accordance with NASDAQ Listing Rules, we had an initial compliance period of 180 calendar days, or until December 29, 2014, to regain compliance with this requirement. If at any time before December 29, 2014, the bid price of our common stock had closed at or above $1.00 per share for a minimum of 10 consecutive business days, NASDAQ would have provided written notification that we had regained compliance. We were not able to maintain the minimum closing bid price by December 29, 2014 and, as a result, we voluntarily applied to transfer the listing of our common stock from the NASDAQ Global Market to the NASDAQ Capital Market. In connection with the transfer to the NASDAQ Capital Market, which became effective on January 5, 2015, we were granted an additional 180 days, or until June 29, 2015, to regain compliance by maintaining a minimum closing bid price of at least $1.00 for ten consecutive business days. If we do not regain compliance with the minimum closing bid price requirement during this second 180-day compliance period, NASDAQ will provide written notice that our securities are subject to delisting. At such time, we would be entitled to appeal the delisting determination to a NASDAQ Listing Qualifications Panel. We cannot provide any assurance that our stock price will recover within the permitted grace period. If our common stock is delisted, it could be more difficult to buy or sell our common stock and to obtain accurate quotations, and the price of our stock could suffer a material decline. Delisting may also impair our ability to raise capital.

Furthermore, it would be a fundamental change under the indentures governing the Convertible Notes if our common stock is not listed on a national securities exchange. In such circumstance we would be required to offer to repurchase the Convertible Notes at 100% plus accrued and unpaid interest through, but not including, the repurchase date. We would also be required to pay the holders of the 2017 Notes a fundamental change make-whole payment equal to the aggregate amount of interest that would have otherwise been payable on such notes, to, but not including, the maturity date of such notes. Repurchase offers for the 2022 Notes would be prohibited by the agreements governing our secured indebtedness with TriplePoint.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters and research and development laboratories, included in our Gevo, Inc. segment, are located in Englewood, Colorado, where we occupy approximately 29,865 square feet of office and laboratory space. Our lease for this facility expires in July 2016. We believe that the facility that we currently lease is adequate for our needs for the immediate future and that, should it be needed, additional space can be leased to accommodate any future growth. Our subsidiary, Agri-Energy, included in our Gevo Development/Agri-Energy segment, owns and operates an ethanol and isobutanol production facility in Luverne, Minnesota on approximately 55 acres of land and contains approximately 50,000 square feet of building space. The production facility was originally constructed in 1998. The land and buildings are owned by Agri-Energy, which granted to Whitebox and TriplePoint a mortgage lien and security interest in such property to secure its obligations under Whitebox Notes Indenture and the Amended Agri-Energy Loan Agreement with TriplePoint.

Item 3. Legal Proceedings

On January 14, 2011, Butamax filed a complaint (the “Complaint”) against us in the Delaware District Court, as Case No. 1:11-cv-00054-SLR, alleging that we are infringing one or more claims made in U.S. Patent No. 7,851,188 (the “’188 Patent”), entitled “Fermentive Production of Four Carbon Alcohols.” The ’188 Patent, which has been assigned to Butamax, claims certain recombinant microbial host cells that produce isobutanol and methods for the production of isobutanol using such host cells. Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses. On March 25, 2011, we filed a response to the Complaint, denying Butamax’s allegations of infringement and raising affirmative defenses.

On August 11, 2011, Butamax amended the Complaint to include allegations that we are infringing one or more claims made in U.S. Patent No. 7,993,889 (the “’889 Patent”), also entitled “Fermentive Production of Four Carbon Alcohols” (the “Amended Complaint”). The ’889 Patent, which has been assigned to Butamax, claims methods for producing isobutanol using certain recombinant yeast microorganisms expressing an engineered isobutanol biosynthetic pathway. We believe that the Amended Complaint is without merit and will continue to aggressively defend our freedom to operate.

On September 13, 2011, we filed an answer to the Amended Complaint in which we asserted counterclaims against Butamax and DuPont for infringement of U.S. Patent No. 8,017,375 (the “’375 Patent”), entitled “Yeast Organism Producing Isobutanol at a High Yield” and U.S. Patent No. 8,017,376 (the “’376 Patent”), entitled “Methods of Increasing Dihydroxy Acid Dehydratase Activity to Improve Production of Fuels, Chemicals, and Amino Acids.” The counterclaims sought a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses. These counterclaims were set for trial in August 2013. On July 26, 2013, the Delaware District Court issued an order regarding claim construction and summary judgment of Gevo’s counterclaims involving the ’375 and ’376 Patents. Both parties had asked the Delaware District Court to resolve certain issues regarding the ’375 and ’376 Patents without a trial by seeking summary judgment from the Delaware District Court. Butamax had filed motions seeking summary judgment that it did not infringe such patents and the Delaware District Court granted Butamax’s motions on this issue. Butamax had also moved for summary judgment of invalidity on both patents. The Delaware District Court granted Butamax’s motion of invalidity on the ’375 Patent, but denied Butamax’s motion of invalidity on the ’376 Patent. On August 8, 2013, an order was issued by the Delaware District Court which entered a final judgment of non-infringement in favor of Butamax and DuPont with respect to the claims of the ’375 and ’376 Patents. The August 8, 2013 order also entered a final judgment of invalidity in favor of Butamax and DuPont with respect to the claims of the ’375 Patent. In addition, it was further ordered that the Butamax and DuPont claims and counterclaims relating to the unenforceability of the ’375 Patent, and the invalidity and/or unenforceability of the ’376 Patent, would be dismissed without prejudice, and that the Butamax and DuPont claims for exceptional case, attorney’s fees and/or costs would be preserved for later presentation to the Delaware District Court. As a result of the August 8, 2013 order, a trial did not occur on August 12, 2013 as previously scheduled. On August 26, 2014, Butamax and DuPont’s claims for exceptional case, attorney’s fees and/or costs were denied.

On September 22, 2011, Butamax filed a motion for preliminary injunction with respect to the alleged infringement by us of one or more claims made in the ’889 Patent.

On January 24, 2012, we filed a complaint in the Delaware District Court, as Case No. 1:12-cv-00070-SLR, alleging that Butamax and DuPont are infringing one or more claims made in U.S. Patent No. 8,101,808 (the “’808 Patent”), entitled “Recovery of Higher Alcohols from Dilute Aqueous Solutions.” The ’808 Patent claims methods to produce a C3-C6 alcohol—for example, isobutanol—through fermentation and to recover that alcohol from the fermentation medium. We sought a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses. On May 8, 2013, we stipulated and agreed to dismiss without prejudice the ’808 Patent suit against Butamax, DuPont, or their affiliates, with each side bearing its own costs and fees in the action. We further stipulated and agreed with Butamax that we shall not re-assert the ’808 Patent against Butamax, DuPont, or their respective affiliates until a final Certificate of Reexamination is received from the U.S. Patent and Trademark Office (“USPTO”) in Inter Partes Reexamination Control No. 95/000,666.

On March 12, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-00298-SLR, alleging that we are infringing one or more claims made in U.S. Patent No. 8,129,162, entitled “Ketol-Acid Reductoisomerase Using NADH.” This complaint is in addition to the Amended Complaint discussed above. Butamax is seeking a declaratory judgment, injunctive relief, damages, interest, costs and expenses, including attorney’s fees. We believe that we have meritorious defenses to these allegations and intend to vigorously defend this lawsuit. This case is scheduled for trial on April 25, 2016.

On March 13, 2012, we filed a complaint in the Delaware District Court, as Case No. 1:12-cv-00301-SLR, alleging that Butamax and DuPont are infringing U.S. Patent No. 8,133,715 (the “’715 Patent”), entitled “Reduced By-Product Accumulation for Improved Production of Isobutanol.” The ’715 Patent claims recombinant microorganisms, including yeast, with modifications for the improved production of isobutanol. We are seeking a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses.

On April 10, 2012, we filed a complaint (the “Gevo Complaint”) in the Delaware District Court, as Case No. 1:12-cv-00448-SLR, alleging that Butamax and DuPont are infringing one or more claims made in U.S. Patent No. 8,153,415 (the “’415 Patent”), entitled “Reduced By-Product Accumulation for Improved Production of Isobutanol.” The ’415 Patent claims technology which eliminates two pathways that compete for isobutanol pathway intermediates in yeast. We are seeking a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses.

On April 17, 2012, we amended the Gevo Complaint to include allegations that Butamax and DuPont are infringing one or more claims made in U.S. Patent No. 8,158,404 (the “’404 Patent”), entitled “Reduced By-Product Accumulation for Improved Production of Isobutanol.” The ’404 Patent claims the reduction or elimination of important enzymes in a pathway in isobutanol-producing yeast. We are seeking a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses.

On May 9, 2012, coordinated discovery was ordered for Case Nos. 1:12-cv-00070-SLR, 1:12-cv-00298-SLR, 1:12-cv-00301-SLR, and 1:12-cv-00448-SLR. By virtue of the same order, discovery in Case No. 1:12-cv-00602-SLR was also coordinated with these cases.

On May 15, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-00602-SLR, alleging that we are infringing one or more claims made in U.S. Patent No. 8,178,328, entitled “Fermentive Production of Four Carbon Alcohols.” Butamax is seeking a declaratory judgment, injunctive relief, damages, interest, costs and expenses, including attorney’s fees. We believe that we have meritorious defenses to these allegations and intend to vigorously defend this lawsuit. This case is scheduled for trial on April 25, 2016.

On June 19, 2012, the Delaware District Court denied the motion for preliminary injunction which was filed by Butamax on September 22, 2011 with respect to the alleged infringement by us of one or more claims made in the ’889 Patent. As is normal and customary in patent infringement actions of this nature, Butamax then filed a notice of appeal. In connection with its appeal, Butamax also filed a motion with the Delaware District Court seeking a temporary order to limit our activities with respect to the automotive fuel blending market while Butamax appealed the denial of its motion for preliminary injunction.

On July 6, 2012, the Delaware District Court issued a temporary order which stated, in part, that we could not deliver, provide, distribute, ship, release or transfer in any way bio-isobutanol produced at the Agri-Energy Facility to any third party for any use or purpose related to the automotive fuel blending market while Butamax appealed the denial of its motion for preliminary injunction. We filed an appeal of the temporary order. Under the temporary order, we remained free to operate in markets such as chemicals, jet fuel, marine fuel and small engine fuel. On August 10, 2012, the Federal Circuit Court of Appeals granted our motion to stay the status quo order entered on July 6, 2012 by the Delaware District Court. On November 16, 2012, the Federal Circuit Court of Appeals affirmed the Delaware District Court’s denial of Butamax’s preliminary injunction motion.

On July 31, 2012, we filed a complaint in the United States District Court for the Eastern District of Texas, as Case No. 2:12-cv-00417, alleging that Butamax, DuPont, BP, BP Corporation North America Inc. and BP Biofuels North America LLC are infringing U.S. Patent No. 8,232,089 (the "'089 Patent), entitled "Cytosolic Isobutanol Pathway Localization for the Production of Isobutanol." We are seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses. On December 17, 2012, this case was transferred to the Delaware District Court as Case No. 1:12-cv-01724-SLR. On February 19, 2013, BP filed a motion seeking to dismiss our complaint for failure to state a claim against it. On March 8, 2013, we filed a response in opposition to BP's motion. On March 18, 2013, BP filed its reply brief, and the issue was submitted to the court for decision. On July 8, 2013, the court granted BP's motion. Despite the court's decision, Butamax, DuPont, BP Corporation North America Inc. and BP Biofuels North America LLC remain defendants in the suit.

On July 31, 2012, Butamax and DuPont filed a lawsuit in the Delaware District Court for declaratory judgment against us, as Case No. 1:12-cv-00999-SLR, seeking a judicial determination that the '089 Patent is invalid and that Butamax and DuPont do not infringe it. On January 28, 2013, this case was closed following a voluntary stipulation of dismissal filed by both parties.

On August 6, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-01014-SLR, alleging that we are infringing U.S. Patent No. 8,222,017, entitled "Ketol-Acid Reductoisomerase Using NADH." Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses. This case is scheduled for trial on April 25, 2016. On January 22, 2013, discovery in this case was consolidated with Case Nos. 1:12-cv-00070-SLR, 1:12-cv-00298-SLR, 1:12-cv-00301-SLR, 1:12-cv-00448-SLR, and 1:12-cv-00602-SLR. In December 2013, we withdrew our claims of infringement against Butamax in Case Nos. 1:12-cv-00301-SLR, and 1:12-cv-00448-SLR. Despite the withdrawal of our infringement claims against Butamax in Case Nos. 1:12-cv-00301-SLR and 1:12-cv-00448-SLR, Butamax continues to pursue counterclaims of invalidity in these cases.

On August 14, 2012, we filed a lawsuit in the United States District Court for the Eastern District of Texas for a declaratory judgment against Butamax, DuPont, BP, BP Corporation North America Inc. and BP Biofuels North America LLC, as Case No. 2:12-cv-00435, seeking a judicial determination that a recently issued Butamax U.S. Patent No. 8,241,878 (the "'878 Patent"), entitled "Recombinant Yeast Host Cell with Fe-S Cluster Proteins and Methods of Using Thereof" is invalid and that we do not infringe it. On December 17, 2012, this case was transferred to the Delaware District Court as Case No. 1:12-cv-01725-SLR. On January 28, 2013, this case was closed following a voluntary stipulation of dismissal filed by both parties.

On August 14, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-01036-SLR, alleging that we are infringing the '878 Patent. Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses. This case is scheduled for trial on August 24, 2015.

On September 25, 2012, we filed a complaint in the Delaware District Court, as Case No. 1:12-cv-01202-SLR, alleging that Butamax and DuPont are infringing U.S. Patent No. 8,273,565 (the "'565 Patent"), entitled "Methods of Increasing Dihydroxy Acid Dehydratase Activity to Improve Production of Fuels, Chemicals, and Amino Acids." We were seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses. On September 25, 2012, Butamax and DuPont filed a lawsuit in the Delaware District Court for declaratory judgment against us, as Case No. 1:12-cv-01201-SLR, seeking a judicial determination that the '565 Patent is invalid and that Butamax and DuPont do not infringe it. On August 9, 2013, Case Nos. 1:12-cv-01202-SLR and 1:12-cv-01201-SLR were closed following a voluntary stipulation of dismissal filed by both parties.

On September 25, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-01200-SLR, alleging that we are infringing U.S. Patent No. 8,273,558, entitled "Fermentive Production of Four Carbon Alcohols."

Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses. This case is scheduled for trial on August 24, 2015.

On October 8, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-01300-SLR, alleging that we are infringing U.S. Patent No. 8,283,144, entitled "Fermentive Production of Four Carbon Alcohols." Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses. This case is scheduled for trial on August 24, 2015.

On October 8, 2012, Butamax filed a lawsuit in the Delaware District Court for declaratory judgment against us, as Case No. 1:12-cv-01301-SLR, seeking a judicial determination that Butamax is not infringing our U.S. Patent No. 8,283,505, entitled "Recovery of Higher Alcohols from Dilute Aqueous Solutions." On January 28, 2014 the Delaware District Court issued an order dismissing Case No. 1:12-cv-01301-SLR.

On February 13, 2013, coordinated discovery was ordered for Case Nos. 1:12-cv-01036-SLR, 1:12-cv-01200-SLR, 1:12-cv-01201-SLR, 1:12-cv-01202-SLR, 1:12-cv-01300-SLR, 1:12-cv-01301-SLR, and 1:12-cv-01724-SLR. Case Nos. 1:12-cv-01036-SLR, 1:12-cv-01200-SLR and 1:12-cv-01300-SLR are currently set for trial on August 24, 2015.

On March 19, 2013, the Delaware District Court issued an order regarding claim construction and summary judgment in the patent suit involving the ’188 Patent and the ’889 Patent. Both parties had asked the Delaware District Court to resolve certain issues regarding the ’188 Patent and the ’889 Patent without a trial by seeking summary judgment from the court. Butamax had filed a motion seeking summary judgment that we infringed such patents, but the Delaware District Court denied Butamax’s motion. We moved for summary judgment of noninfringement, both as a matter of literal infringement and infringement under the doctrine of equivalents, and the Delaware District Court granted our motion regarding doctrine of equivalents infringement. We also moved for summary judgment of invalidity of various claims in the ’188 Patent and the ’889 Patent. The Delaware District Court granted this motion in part, ruling that Butamax’s claims related to the inactivation of competing pathways for carbon flow were invalid.

The Delaware District Court also provided certain claim construction rulings, including a ruling that Butamax’s patent claims were limited to an “acetohydroxy acid isomeroreductase” enzyme that is “NADPH-dependent.” The remaining issues were to be resolved by a jury trial, scheduled to commence on April 1, 2013.

On March 20, 2013, the Delaware District Court held the final pre-trial hearing leading up to the trial on the ’188 Patent and the ’889 Patent scheduled to commence April 1, 2013. During the hearing, Butamax’s attorney acknowledged that we do not infringe such patents under the Delaware District Court’s construction of a key claim term in such patents, “acetohydroxy acid isomeroreductase.” Butamax offered to stipulate to no literal infringement under the Delaware District Court’s construction. In view of this stipulation and the Delaware District Court’s prior ruling of no infringement under Butamax’s alternative infringement theory, the doctrine of equivalents, on April 10, 2013 a judgment of no infringement was entered in favor of us.

On April 19, 2013, Butamax filed a notice of appeal with the U.S. Court of Appeals for the Federal Circuit to appeal the Delaware District Court’s Memorandum and Order of March 19, 2013, and the Delaware District Court’s Amended Final Judgment of April 10, 2013. Oral arguments for the Butamax appeal were heard by the U.S. Court of Appeals for the Federal Circuit on November 7, 2013.

On February 18, 2014, the U.S. Court of Appeals for the Federal Circuit vacated the Delaware District Court’s denial of Butamax’s motion for summary judgment of literal infringement of the asserted claims of the ’188 Patent and the ’889 Patent and remanded the question of infringement to the Delaware District Court for reconsideration under a revised claim construction. The U.S. Court of Appeals for the Federal Circuit also vacated and remanded the Delaware District Court’s grant of our motion for summary judgment of noninfringement under the doctrine of equivalents. The U.S. Court of Appeals for the Federal Circuit also reversed the Delaware District Court’s grant of our motion for summary judgment of invalidity for lack of a written description of claims 12 and 13 of the ’889 Patent and the Delaware District Court’s order that those same claims are invalid for lack of enablement. The remanded trial for the ’188 and ’889 patents in the Delaware District Court was scheduled to be held on July 21, 2014. On April 22, 2014, we filed a Petition for Writ of Certiorari with the U.S. Supreme Court to appeal the decision of the U.S. Court of Appeals for the Federal Circuit. On April 25, 2014, we filed a motion to stay the Delaware District Court’s July 21, 2014 trial pending the disposition of our Petition for Writ of Certiorari with the U.S. Supreme Court and any follow-on proceedings.

On July 11, 2014, the Delaware District Court granted our motion to stay the patent litigation on the ‘188 Patent and ‘889 Patent. The District Court’s decision postpones the trial in this action, which was scheduled to begin on July 21, 2014. The decision by the District Court was based on the status of our Petition for Writ of Certiorari in the U.S. Supreme Court. Oral argument in Teva occurred on October 15, 2014 and on January 20, 2015, the Supreme Court ruled in Teva’s favor and determined that the Federal Circuit must now apply the “clear error” standard of review and cannot set aside District Courts’ findings of fact unless they were clearly erroneous. On January 26, 2015, the Supreme Court ruled in Gevo’s favor, vacated an earlier Federal Circuit Court ruling on the interpretation of key Butamax patent claims and remanded the case back to the Federal Circuit Court for consideration in light of the new "clear error" standard of appellate review that was decided in the Teva case."

On February 18, 2014, the Delaware District Court granted our motion to stay the litigation regarding our '715 Patent, '404 Patent and '415 Patent pending the USPTO's issuance of a Right to Appeal Notice during *inter partes* re-examination of those patents.

Due to the nature and stage of this litigation, we have determined that the possible loss or range of loss related to this litigation cannot be reasonably estimated at this time. The next Delaware District Court trial for the Butamax litigation is currently scheduled for August 24, 2015 and an additional trial is scheduled for April 25, 2016. We expect to continue to incur significant costs related to our involvement in the foregoing legal proceedings.

Item 4. Mine Safety Disclosures

Not Applicable.

PART II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities Market for Common Stock

In December 2014, the Company received a positive determination from the Listing Qualifications department of The Nasdaq Stock Market ("Nasdaq"), granting approval of the Company's request to transfer its listing to The Nasdaq Capital Market from The Nasdaq Global Market in order to continue to pursue compliance with Nasdaq's minimum bid price requirement. The Company's securities began trading on the Nasdaq Capital Market effective at the start of trading on January 5, 2015. The transfer of the Company's listing to the Nasdaq Capital Market is not expected to have any impact on trading in the Company's securities, and the Company's securities will continue to trade on the Nasdaq Capital Market under the symbol 'GEVO'. Prior to January 5, 2015 and since February 9, 2011, our common stock had been traded on the NASDAQ Global Market under the symbol "GEVO". The following table sets forth, for the period indicated, the high and low sales prices for our common stock, as reported by the NASDAQ Global Market, for the periods indicated below.

The following table sets forth, for the period indicated, the high and low sales prices for our common stock, as reported by the NASDAQ Global Market, for the periods indicated below.

	Common Stock Price 2014		Price 2013	
	High	Low	High	Low
First Quarter	$1.55	$1.14	$2.75	$1.62
Second Quarter	1.34	0.73	2.34	1.53
Third Quarter	0.93	0.30	2.30	1.67
Fourth Quarter	0.54	0.25	2.18	1.12

Holders of Record

The last sale price of our common stock on March 26, 2014, as reported by the NASDAQ Capital Market, was $0.27 per share. As of March 26, 2014, there were approximately 75 holders of record of our common stock. We believe that the number of beneficial owners is substantially greater than the number of record holders because a large portion of our common stock is held of record through brokerage firms in "street name."

Dividends

No cash dividends have been paid on our common stock to date, nor do we anticipate paying dividends in the foreseeable future.

Under the terms of the Amended Agri-Energy Loan Agreement, subject to certain limited exceptions, Agri-Energy is only permitted to pay dividends if the following conditions are satisfied: (i) the Retrofit of the Agri-Energy Facility is complete and the facility is producing commercial volumes of isobutanol, (ii) its net worth is greater than or equal to $10.0 million, and (iii) no event of default has occurred and is continuing under the agreement.

Equity Compensation Plan Information

The information required to be disclosed under Item 201 of Regulation S-K is included in this Report under Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Performance Graph

Set forth below is a graph comparing the yearly change in the cumulative total return of Gevo's common stock with the cumulative total return of the Standard & Poor's SmallCap 600 Value Index and with the NASDAQ Clean Edge Green Energy Index over the period from the Company's inception of February 2011 through December 31, 2014.

It is assumed in the graph that $100 was invested (i) in our common stock; (ii) in the stocks of the companies in the Standard & Poor's SmallCap 600 Value Index; and (iii) in the stocks of the NASDAQ Clean Edge Green Energy Index.

The stock price performance shown on the following graph is not indicative of future price performance.

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 6. Selected Financial Data

The following selected historical consolidated financial data should be read together with our consolidated financial statements and the accompanying notes appearing in Part II, Item 8 of this Report, and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The selected historical consolidated financial data in this section is not intended to replace our historical consolidated financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results.

We derived the consolidated statements of operations data for the years ended December 31, 2014, 2013 and 2012 and the consolidated balance sheet data as of December 31, 2014 and 2013 from our audited consolidated financial statements in Part II, Item 8 of this Report. The consolidated statement of operations data for the years ended December 31, 2011 and 2010 and the consolidated balance sheet data as of December 31, 2012, 2011 and 2010 has been derived from our audited consolidated financial statements not included in this Report. The data should be read in conjunction with the consolidated financial statements, related notes, and other financial information included herein.

(In thousands except share and per share amounts)	Years Ended December 31,				
Consolidated statement of operations data:	2014	2013	2012	2011	2010
Total revenue (1) (2) (3)	$28,266	$8,224	$24,385	$64,549	$16,396
Costs of goods and corn sold (1)	35,582	17,913	32,410	60,588	13,446
Operating expenses	32,461	45,826	63,412	48,654	38,463
Loss from operations	(39,777)	(55,515)	(71,437)	(44,693)	(35,513)
Net loss (4) (5)	(41,145)	(66,806)	(60,712)	(48,214)	(40,112)
Net loss per share - basic and diluted	(0.51)	(1.48)	(1.86)	(2.15)	(37.44)
Weighted-average number of common shares outstanding - basic and diluted	80,492,432	45,071,618	32,619,091	22,909,916	1,145,500

	As of December 31,				
Consolidated balance sheet data:	2014	2013	2012	2011	2010
Cash and cash equivalents	$6,359	$24,625	$66,744	$94,225	$15,274
Total assets	98,928	116,355	156,111	133,030	51,609
Derivative warrant liability	3,114	7,243	-	-	2,034
Secured debt	773	10,127	23,958	28,243	20,432
2017 notes recorded at fair value	25,460	-	-	-	-
2022 notes, net	13,679	14,501	25,554	-	-
Total liabilities	51,964	45,380	58,280	40,893	31,650
Accumulated deficit	(303,298)	(262,153)	(195,347)	(134,635)	(85,327)
Total stockholders' equity	46,964	70,975	97,831	92,137	19,959

(1) We commenced the sale of ethanol in the fourth quarter of 2010 upon acquiring Agri-Energy.

(2) During the second quarter of 2012, we suspended the production of ethanol and commenced initial startup operations for the production of isobutanol.

(3) In March 2014, we decided to leverage the flexibility of our GIFT® technology and further modify the Agri-Energy Facility in order to enable the simultaneous production of isobutanol and ethanol, and in July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production.

(4) We recognized gains of $3.5 million, $3.1 million and $17.0 million during the years ended December 31, 2014, 2013 and 2012, respectively, associated with a change in the fair value of the derivatives embedded in our 2022 Notes. We recognized a gain of $6.5 million and a loss of $3.2 million during the years ended December 31, 2014 and 2013, respectively, associated with a change in the fair value of Warrants to purchase our common stock that were issued in August 2014 and December 2013, in conjunction with our offering of common stock units.

(5) During the year ended December 31, 2013, certain holders of our 2022 Notes elected to convert 2022 Notes in an aggregate principal amount $18.1 million into shares of our common stock, reducing the principal balance of the

2022 Notes to $26.9 million. Upon conversion, the holders of the 2022 Notes received 3,179,608 shares of Gevo, Inc. common stock in payment of converted principal of $18.1 million and, pursuant to the terms of the Indenture, such holders also received 2,957,775 shares of Gevo, Inc. common stock in settlement of Coupon Make-Whole Payments of $4.9 million. As a result, we recognized a loss of $2.0 million associated with the conversion of debt.

The following table reflects our unaudited summarized quarterly consolidated financial statements for each of the twelve months ended December 31, 2014 and 2013. This information has been derived from unaudited consolidated financial statements that, in the opinion of management, include all recurring adjustments necessary for a fair statement of such information (in thousands except share and per share amounts).

2014	Quarter First	Second	Third	Fourth
Revenue	$903	$7,721	$10,141	$9,501
Gross loss (1)	(3,777)	(548)	(1,619)	(1,372)
Loss from operations	(12,922)	(9,032)	(8,912)	(8,911)
Gain from change in fair value of embedded derivative of the 2022 Notes	1,264	1,480	726	-
Gain (loss) from change in fair value of derivative warrant liability	1,278	1,321	4,173	(242)
(Loss) gain from change in fair value of 2017 Notes	-	(5,129)	5,673	104
Net loss	(11,972)	(17,156)	(938)	(11,079)
Net loss per share - basic and diluted	$(0.18)	$(0.25)	$(0.01)	$(0.12)
Weighted-average number of common shares outstanding - basic and diluted	67,760,721	67,969,811	87,121,184	98,667,424

2013	Quarter First	Second	Third	Fourth
Revenue	$3,543	$1,859	$1,127	$1,695
Gross loss (2)	(960)	(1,757)	(3,619)	(3,353)
Loss from operations	(12,886)	(13,864)	(15,763)	(13,002)
Loss on conversion of debt	(926)	(1,112)	-	-
(Loss) gain from change in fair value of embedded derivative of the 2022 Notes	(1,330)	2,023	1,587	834
Loss from change in fair value of derivative warrant liability	-	-	-	(3,195)
Net loss	(18,370)	(15,222)	(15,885)	(17,329)
Net loss per share - basic and diluted	$(0.45)	$(0.35)	$(0.34)	$(0.35)
Weighted-average number of common shares outstanding - basic and diluted	40,996,922	43,371,992	46,052,867	49,758,100

(1) Gross loss during 2014 primarily relates to costs associated with conducting research and development, business development, business and financial planning, establishing facilities and operations for the co-production of isobutanol and ethanol at the Agri-Energy Facility.

(2) Gross loss during the 2013 third and fourth quarters primarily relates to costs associated with the startup operations and commissioning of the Agri-Energy Facility on corn mash for fully integrated production.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations
The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes that appear elsewhere in this Report. In addition to historical financial information, the following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those discussed below. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Report, particularly in "Risk Factors."

We are a renewable chemicals and next generation biofuels company. Our strategy is to commercialize biobased alternatives to petroleum-based products to allow for the optimization of fermentation facilities' assets, with the ultimate goal of maximizing cash flows from the operation of those assets. We have developed proprietary technology that uses a combination of synthetic biology, metabolic engineering, chemistry and chemical engineering to focus primarily on the production of isobutanol, as well as related products from renewable feedstocks. Isobutanol is a four-carbon alcohol that can be sold directly for use as a specialty chemical in the production of solvents, paints and coatings or as a value-added gasoline blendstock. Isobutanol can also be converted into butenes using dehydration chemistry deployed in the refining and petrochemicals industries today. The convertibility of isobutanol into butenes is important because butenes are primary hydrocarbon building blocks used in the production of hydrocarbon fuels, lubricants, polyester, rubber, plastics, fibers and other polymers.

We believe that products derived from our isobutanol will be drop-in products, which means that our customers will be able to replace petroleum-based intermediate products with renewable isobutanol-based intermediate products without modification to their equipment or production processes. The final products produced from our renewable isobutanol-based intermediate products should be chemically and physically identical to those produced from petroleum-based intermediate products, except that they will contain carbon from renewable sources. Customer interest in our renewable isobutanol is primarily driven by our production route, which we believe will be cost-efficient, and our renewable isobutanol's potential to serve as a cost-effective, environmentally sensitive alternative to the petroleum-based intermediate products that are currently used. We believe that at every step of the value chain, renewable products that are chemically identical to the incumbent petrochemical products will have lower market adoption hurdles in contrast with other bioindustrial products because the infrastructure and applications for such products already exist. In addition, we believe that products made from biobased isobutanol will be subject to less raw material cost volatility than the petroleum-based products in use today because of the lower historical cost volatility of agricultural feedstocks compared to oil.

In order to produce and sell isobutanol made from renewable sources, we have developed GIFT®, an integrated technology platform for the efficient production and separation of renewable isobutanol. GIFT® consists of two components, proprietary biocatalysts that convert sugars derived from multiple renewable feedstocks into isobutanol through fermentation, and a proprietary separation unit that is designed to continuously separate isobutanol during the fermentation process. We developed our technology platform to be compatible with the existing approximately 23 BGPY of global operating ethanol production capacity, as estimated by the RFA. GIFT® is designed to permit (i) the retrofit of existing ethanol capacity to produce isobutanol, ethanol or both products simultaneously, or (ii) the addition of renewable isobutanol or ethanol production capabilities to a facility's existing ethanol production by adding additional fermentation capacity side-by-side with the facility's existing ethanol fermentation capacity (collectively referred to as "Retrofit"). Having the flexibility to switch between the production of isobutanol and ethanol, or produce both products simultaneously, should allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions. GIFT® is also designed to allow relatively low capital expenditure Retrofits of existing ethanol facilities, enabling a rapid route to isobutanol production from the fermentation of renewable feedstocks. We believe that our production route will be cost-efficient and will enable rapid deployment of our technology platform and allow our isobutanol and related renewable products to be economically competitive with many of the petroleum-based products used in the chemicals and fuels markets today.

We expect that the combination of our efficient proprietary technology, our marketing focus on providing drop-in substitutes for incumbent petrochemical products and our relatively low capital investment Retrofits will mitigate many of the historical issues associated with the commercialization of renewable chemicals and fuels.

Financial Condition

For the year ended December 31, 2014, we incurred a consolidated net loss of $41.1 million and had an accumulated deficit of $303.3 million. Our cash and cash equivalents at December 31, 2014 totaled $6.4 million which is primarily being used for the following: (i) operating activities and completion of the side-by-side configuration of our Agri-Energy Facility; (ii) operating activities at our corporate headquarters in Colorado, including research and development work; (iii) capital improvements primarily associated with the Agri-Energy Facility; (iv) costs associated with optimizing isobutanol production technology; (v) costs associated with the ongoing litigation with Butamax; and (vi) debt service obligations. We expect to incur future net losses as we continue to fund the development and commercialization of our product candidates. Our transition to profitability is dependent upon, among other things, the successful development and commercialization of our product candidates and the achievement of a level of revenues adequate to support our existing cost structure. We may never achieve profitability or generate positive cash flows, and unless and until we do, we will continue to need to raise additional cash. We intend to fund future operations through additional private and/or public offerings of debt or equity securities. In addition, we may seek additional capital through arrangements with strategic partners or from other sources, may seek to restructure our debt and we will continue to address the Company's cost structure. Notwithstanding, there can be no assurance that we will be able to raise additional funds, or achieve or sustain profitability or positive cash flows from operations. Based on our operating plan, existing working capital at December 31, 2014 was not sufficient to meet the cash requirements to fund planned operations through December 31, 2015 without additional sources of cash. These conditions raise substantial doubt about our ability to continue as a going concern. See Note 20 in Item 8, Financial Statements and Supplementary Data, of this Report, for information on the Company's issuance of common stock units subsequent to December 31, 2014.

Agri-Energy

In September 2010, we acquired the Agri-Energy Facility which we have Retrofitted for the production of isobutanol. As of December 31, 2014, we have incurred capital costs of approximately $65.6 million on the Retrofit of the Agri-Energy Facility. The Retrofit of the Agri-Energy Facility includes a number of additional capital costs that are unique to the design of the facility, including additional equipment that we believe will allow us to switch between ethanol and isobutanol production, or produce both products simultaneously, modifications to increase the potential production capacity of GIFT® at the Agri-Energy Facility and the establishment of an enhanced yeast seed train to accelerate the adoption of improved yeast at the Agri-Energy Facility and at future plants. Capital expenditures at the Agri-Energy Facility also include upfront design and engineering costs, plant modifications identified as necessary during initial startup operations for the production of isobutanol as well as capitalized interest. In May 2012, we commenced initial startup operations for the production of isobutanol at the Agri-Energy Facility. In September 2012, as a result of a lower than planned production rate of isobutanol we made the strategic decision to pause isobutanol production at the Agri-Energy Facility at the conclusion of startup operations to focus on optimizing specific parts of the process to further enhance isobutanol production rates. In 2013, we modified our Agri-Energy Facility in order to increase the isobutanol production rates. In June 2013, we resumed the limited production of isobutanol operating one fermenter and one GIFT® separation system in order to (i) verify that the modifications had significantly reduced the previously identified infections, (ii) demonstrate that our biocatalyst performs in the one million liter fermenters at the Agri-Energy Facility, and (iii) confirm GIFT® efficacy at commercial scale at the Agri-Energy Facility. In August 2013, we expanded production capacity at the Agri-Energy Facility by adding a second fermenter and second GIFT® system to further verify our results with a second configuration of equipment. For these initial production runs, we demonstrated fermentation operations at commercial scale combined with the use of our GIFT® separation system using a dextrose (sugar) feedstock. Based on the results of these initial production runs, in October 2013 we began commissioning the Agri-Energy Facility on corn mash to test isobutanol production run rates and to optimize biocatalyst production, fermentation separation and water management systems. In March 2014, we decided to leverage the flexibility of our GIFT® technology and further modify the Agri-Energy Facility to enable the simultaneous production of isobutanol and ethanol. In July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. In line with our strategy to maximize asset utilization and site cash flows, this configuration of the plant should allow us to continue to optimize our isobutanol technology at a commercial scale, while taking advantage of potentially superior ethanol contribution margins. Also with a view to maximizing site cash flows, over certain periods of time, we may and have operated the plant for the sole production of ethanol across all four fermenters.

Until May 2012, when we commenced initial Retrofit startup operations for the production of isobutanol at the Agri-Energy Facility, we derived revenue from the sale of ethanol, distiller's grains and other related products produced as part of the ethanol production process at the Agri-Energy Facility. Continued ethanol production during the Retrofit process allowed us to retain local staff for the future operation of the plant, maintain the equipment and generate cash flow. However, the continued production of ethanol alone is not our intended business and our strategy is expected to depend on our ability to produce and market isobutanol and products derived from isobutanol. We believe that we will be able to transition back to the production and sale of ethanol and related products at the Agri-Energy Facility, alone or in conjunction with the simultaneous production of isobutanol and related products, if we were to project positive cash flows from such a production configuration versus maintaining the facility at idle, including any costs related to the transition, but there is no guarantee that this will be the case. During 2013, we did not transition back to ethanol production because we were engaged in activities at the Agri-Energy Facility to optimize specific parts of our technology to further enhance isobutanol production rates. Following the commencement of full-scale commercial production of isobutanol, we may not generate significant future revenues from the sale of ethanol or ethanol-related products produced at the Agri-Energy Facility. Accordingly, the historical operating results of our subsidiary, Agri-Energyand the operating results reported during the Retrofit to isobutanol production may not be indicative of future operating results for Agri-Energy or the Company once full-scale commercial production of isobutanol commences at the Agri-Energy Facility.

Revenues, Cost of Goods Sold and Operating Expenses

Revenues

During 2014, we generated revenue primarily from: (i) the sale of ethanol and related products; (ii) hydrocarbon sales consisting primarily of the sale of biojet fuel, iso-octane and bio-paraxylene (“bio-PX”) derived from our isobutanol for purposes of certification and testing; and (iii) government grants and research and development programs.

During the year ended December 31, 2013, we derived revenue primarily from (i) hydrocarbon sales consisting primarily of the sale of biojet fuel, (ii) government grants and research and development programs, and (iii) sales of excess corn inventory.

During the year ended December 31, 2012, we derived revenue primarily from (i) the sale of ethanol and (ii) government grants and research and development programs. Substantially all ethanol sold through Agri-Energy from the date of acquisition through December 31, 2012 was sold to C&N pursuant to an ethanol purchase and marketing agreement.

Cost of Goods Sold and Gross Loss

Our cost of goods sold during the year ended December 31, 2014 primarily includes costs directly associated with ethanol production and initial operations for the production of isobutanol at the Agri-Energy Facility such as costs for direct materials, direct labor, depreciation, other operating costs and certain plant overhead costs. Direct materials include corn feedstock, denaturant and process chemicals. Direct labor includes compensation of personnel directly involved in production operations at the Agri-Energy Facility. Other operating costs include utilities and natural gas usage. Our cost of goods sold during the years ended December 31, 2013 and 2012 primarily includes costs: (i) incurred in conjunction with the initial operations for the production of isobutanol at the Agri-Energy Facility; (ii) associated with the production of ethanol; and (iii) associated with the sale of excess corn inventory. We periodically enter into forward purchase contracts and exchange-traded futures contracts associated with corn. Accordingly, our cost of goods sold may also include gains or losses and/or changes in fair value from our forward purchase contracts and exchange-traded futures contracts.

Our gross loss is defined as our total revenues less our cost of goods sold.

Research and Development

Our research and development costs consist of expenses incurred to identify, develop and test our technologies for the production of isobutanol and the development of downstream applications thereof. Research and development expenses include personnel costs (including stock-based compensation), consultants and related contract research, facility costs, supplies, depreciation and amortization expense on property, plant and equipment used in product development, license fees paid to third parties for use of their intellectual property and patent rights and other overhead expenses incurred to support our research and development programs. Research and development expenses also include upfront fees and milestone payments made under licensing agreements and payments for sponsored research and university research gifts to support research at academic institutions.

Selling, General and Administrative

Selling, general and administrative expenses consist of personnel costs (including stock-based compensation), consulting and service provider expenses (including patent counsel-related costs), legal fees, marketing costs, corporate insurance costs, occupancy-related costs, depreciation and amortization expenses on property, plant and equipment not used in our product development programs or recorded in cost of goods sold, travel and relocation expenses and hiring expenses.

We also record selling, general and administrative expenses for the operations of the Agri-Energy Facility that include administrative and oversight expenses, certain personnel-related expenses, insurance and other operating expenses.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Management bases its estimates, assumptions and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances. Different assumptions and judgments would change the estimates used in the preparation of our consolidated financial statements, which in turn, could change the results from those reported. Our management evaluates its estimates, assumptions and judgments on an ongoing basis.

While our significant accounting policies are more fully described in Note 2 to our consolidated financial statements included in this Report, we believe that the following accounting policies are the most critical to aid you in fully understanding and evaluating our reported financial results and reflect the more significant judgments and estimates that we use in the preparation of our consolidated financial statements.

Accounting for Senior Secured Debt, Convertible Notes and Embedded Derivative

Senior Secured Debt

In May 2014, the Company entered into the Loan Agreement with certain Lenders and Whitebox, as administrative agent for the Lenders, with a maturity date of March 15, 2017, pursuant to which the Lenders committed to provide the Term Loan in an aggregate amount of up to approximately $31.1 million on the terms and conditions set forth in the Loan Agreement. The First Advance of the Term Loan in the amount of $22.8 million, net of discounts and issue costs of $1.6 million and $1.5 million, respectively, was made to the Company in May 2014. Also in May 2014, the Company and its subsidiaries entered into the Exchange and Purchase Agreement. Pursuant to the terms of the Exchange and Purchase Agreement, the Lenders were given the right, subject to certain conditions, to exchange all or a portion of the outstanding principal amount of the Term Loan for the Company's newly created 2017 Notes, which are convertible into shares of the Company's common stock. While outstanding, the Term Loan bore an interest rate equal to 15% per annum, of which 5% was payable in cash and 10% was payable in kind and capitalized and added to the principal amount of the Term Loan.

In June 2014, the Lenders exchanged all $25.9 million of outstanding principal amount of Term Loan provided in the First Advance for 2017 Notes, together with accrued paid-in-kind interest of $0.2 million. The terms of the 2017 Notes are set forth in the 2017 Notes Indenture. The 2017 Notes will mature on March 15, 2017. The 2017 Notes have a conversion price equal to $1.1584 per share or .8633 shares per $1 principal amount of 2017 Notes. Optional prepayment of the 2017 Notes will not be permitted. The 2017 Notes bear interest at a rate equal to 10% per annum, which is payable, under certain circumstances, 5% in cash and 5% in kind and capitalized and added to the principal amount of the 2017 Notes (otherwise the full 10% is payable in cash). While the 2017 Notes are outstanding, the Company is required to maintain an interest reserve in an amount equal to 10% of the aggregate outstanding principal amount, to be adjusted on an annual basis. As of December 31, 2014, there was a balance of $2.6 million in the interest reserve account. This amount is classified as restricted deposits.

The 2017 Notes Indenture contains customary affirmative and negative covenants for agreements of this type and events of default, including, restrictions on disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain amounts of additional indebtedness, making investments, acquiring or merging with another entity, and making dividends and other restricted payments, unless the Company receives the prior approval of the required holders. The 2017 Notes Indenture also contains limitations on the ability of the holder to assign or otherwise transfer its interest in the 2017 Notes. The 2017 Notes are secured by a lien on substantially all of the assets of the Company and is guaranteed by the Guarantor Subsidiaries. On June 6, 2014, in connection with the issuance of the 2017 Notes, the Company and the Guarantor Subsidiaries entered into a Pledge and Security Agreement in favor of the collateral trustee. The collateral pledged includes substantially all of the assets of the Company and the Guarantor Subsidiaries, including intellectual property and real property. Agri-Energy has also entered into a mortgage with respect to the real property located in Luverne, Minnesota.

The holders of the 2017 Notes may, at any time until the close of business on the business day immediately preceding the maturity date, convert the principal amount of the 2017 Notes, or any portion of such principal amount which is at least $1,000, into shares of the Company's common stock. Upon conversion of the 2017 Notes, the Company will deliver shares of common stock at an initial conversion rate of .8633 shares of common stock per $1 principal amount of the 2017 Notes (equivalent to an initial conversion price of approximately $1.1584 per share of common stock).

Such conversion rate is subject to adjustment in certain circumstances, including in the event that there is a dividend or distribution paid on shares of the common stock or a subdivision, combination or reclassification of the common stock. The Company also has the right to increase the conversion rate: (i) by any amount for a period of at least 20 business days if the Company’s board of directors determines that such increase would be in the Company’s best interest or, (ii) to avoid or diminish any income tax to holders of shares of common stock or rights to purchase shares of common stock in connection with any dividend or distribution. In addition, subject to certain conditions described herein, each holder who exercises its option to voluntarily convert its 2017 Notes will receive a Voluntary Conversion Make-Whole Payment in an amount equal to any unpaid interest that would otherwise have been payable on such 2017 Notes through the maturity date. Subject to certain limitations, we may pay any Voluntary Conversion Make-Whole Payments either in cash or in shares of our common stock, at our election.

The Company has the right to require holders of the 2017 Notes to make a Mandatory Conversion of all or part of the 2017 Notes if the last reported sales price of the Company’s common stock over any ten consecutive trading days equals or exceeds 150% of the applicable conversion price. Each holder whose 2017 Notes are converted in a Mandatory Conversion will receive a Mandatory Conversion Make-Whole Payment in an amount equal to any unpaid interest that would have otherwise been payable on such 2017

Notes through the maturity date. Subject to certain limitations, we may pay any Mandatory Conversion Make-Whole Payments either in cash or in shares of our common stock, at our election. No such conversions have occurred.

If a fundamental change of the Company occurs, the holders of 2017 Notes may require the Company to repurchase all or a portion of the 2017 Notes at a cash repurchase price equal to 100% of the principal amount of such 2017 Notes, plus accrued and unpaid interest, if any, through, but excluding, the repurchase date, plus a cash make-whole payment for the repurchased 2017 Notes in an amount equal to any unpaid interest that would otherwise have been payable on such convertible 2017 Notes through the maturity date.

In connection with the transactions described above, the Company also entered into the Registration Rights Agreement, pursuant to which the Company filed a registration statement on Form S-3 registering the resale of approximately 17.5 million shares of the Company's common stock which are issuable under the 2017 Notes. This registration statement was declared effective on July 25, 2014. The Company expects to file additional registration statements on Form S-3 or to amend filings in order to register additional shares of common stock of the Company for sale or resale, as necessary in connection with the 2017 Notes.

On July 31, 2014, the Company entered into amendments to the 2017 Notes Indenture to, among other things, permit the offering and issuance of warrants and the incurrence of indebtedness by the Company under such warrants.

On January 28, 2015, the Company entered into further amendments to the 2017 Notes Indenture to, among other things, permit the offering and issuance of additional warrants and the incurrence of indebtedness by the Company under such additional warrants.

On January 29, 2015, we commenced a conversion forbearance period in accordance with the terms of the 2017 Notes during which neither the Company nor any holder of the 2017 Notes has the right to convert any principal amount of the 2017 Notes into shares of Company common stock. The conversion forbearance period will terminate when the Company provides notice to the trustee for the 2017 Notes that it has a sufficient number of authorized and unissued shares of common stock to permit conversion of all of the outstanding 2017 Notes. If, on June 27, 2015, the conversion forbearance period has not been terminated and we have failed to reserve out of our authorized but unissued shares or treasury shares, sufficient shares of common stock to provide for the conversion of all of the outstanding 2017 Notes, an event of default under the terms of the 2017 Notes will be triggered. Upon such occurrence, 100% of the principal amount and all accrued and unpaid interest under the 2017 Notes will become immediately due and payable. Any default under the terms of the 2017 Notes could have a material adverse effect on our business, results of operations and financial condition.

The Company has elected the fair value option for accounting of the Term Loan and 2017 Notes in order for management to mitigate income statement volatility caused by measurement basis differences between the embedded instruments or to eliminate complexities of applying certain accounting models. Accordingly, the principal amount of 2017 Notes outstanding at December 31, 2014 of $26.1 million has been recorded at its estimated fair value of $25.5 million and is included in the 2017 Notes recorded at fair value on the consolidated balance sheets at December 31, 2014. Change in the estimated fair value of the 2017 Notes represents an unrealized gain included in gain from change in fair value of 2017 Notes in the consolidated statements of operations. During the year ended December 31, 2014, the Company incurred cash interest expense of $1.6 million and non-cash paid-in-kind interest expense of $0.2 million, which has been capitalized and included in the principal amount of 2017 Notes as of December 31, 2014.

The following table sets forth the inputs to the lattice model that were used to value the Term Loan and 2017 Notes for which the fair value option was elected.

	December 31, 2014	
Stock price	$ 0.32	
Conversion Rate	863.3	
Conversion Price	$ 1.16	
Maturity date	March 15, 2017	
Risk-free interest rate	0.80	%
Estimated stock volatility	85.0	%
Estimated credit spread	15.0	%

The following table sets forth information pertaining to the Term Loan and 2017 Notes which is included in the Company's consolidated balance sheets (in thousands).

	Principal Amount of Term Loans	Principal Amount of 2017 Notes	Change in Estimated Fair Value	Total
Balance - December 31, 2013	$-	$-	$ -	$-
Issuance of Term Loan	25,907	-	-	25,907
Exchange of Term Loan for 2017 Notes	(25,907)	25,907	-	-
Non-cash paid-in-kind interest expense	-	201	-	201
Gain from change in fair value of debt	-	-	(648)	(648)
Balance - December 31, 2014	$-	$26,108	$ (648)	$25,460

Changes in certain inputs into the lattice model can have a significant impact on changes in the estimated fair value of the Term Loan and 2017 Notes. For example, the estimated fair value will generally decrease with: (i) a decline in the stock price; (ii) a decrease in the estimated stock volatility; and (iii) an increase in the estimated credit spread. The change in the estimated fair value of the 2017 Notes during the year ended December 31, 2014, represents an unrealized gain which has been recorded as gain from change in fair value of 2017 Notes in the consolidated statements of operations.

2022 Notes and Embedded Derivative

In July 2012, we sold $45.0 million in aggregate principal amount of 2022 Notes. Terms of the 2022 Notes, include, among others: (i) rights to convert into shares of our common stock, including upon a Fundamental Change (as defined in the Indenture); and (ii) a Coupon Make-Whole Payment (as defined in the Indenture) in the event of a conversion by the holders of the 2022 Notes prior to July 1, 2017. Embedded derivatives are separated from the host contract, the 2022 Notes, and carried at fair value when: (a) the embedded derivative possesses economic characteristics that are not clearly and closely related to the economic characteristics of the host contract; and (b) a separate, stand-alone instrument with the same terms would qualify as a derivative instrument. The Company has concluded that the embedded derivatives within the 2022 Notes meet these criteria and, as such, must be valued separate and apart from the 2022 Notes as one embedded derivative and recorded at fair value each reporting period. The fair value of the embedded derivative is included as a component of the 2022 Notes on our consolidated balance sheets.

We used a binomial lattice model in order to estimate the fair value of the embedded derivative in the 2022 Notes. A binomial lattice model generates two probable outcomes, whether up or down, arising at each point in time, starting from the date of valuation until the maturity date. A lattice was initially used to determine if the 2022 Notes would be converted, called or held at each decision point. Within the lattice model, the following assumptions are made: (i) the 2022 Notes will be converted early if the conversion value is greater than the holding value; and (ii) the 2022 Notes will be called if the holding value is greater than both (a) the Redemption Price (as defined in the Indenture) and (b) the conversion value plus the Coupon Make-Whole Payment at the time. If the 2022 Notes are called, then the holders will maximize their value by finding the optimal decision between (1) redeeming at the Redemption Price and (2) converting the 2022 Notes.

Using this lattice, we valued the embedded derivative using a "with-and-without method," where the value of the 2022 Notes including the embedded derivative is defined as the "with," and the value of the 2022 Notes excluding the embedded derivative is defined as the “without.” This method estimates the value of the embedded derivative by looking at the difference in the values between the 2022 Notes with the embedded derivative and the value of the 2022 Notes without the embedded derivative. The lattice model requires the following inputs: (i) price of our common stock; (ii) Conversion Rate (as defined in the Indenture); (iii) Conversion Price (as defined in the Indenture); (iv) maturity date; (v) risk-free interest rate; (vi) estimated stock volatility; and (vii) estimated credit spread for the Company.

The following table sets forth the inputs to the lattice model used to value the embedded derivative.

	December 31, 2014		December 31, 2013	
Stock price	$0.32		$1.43	
Conversion Rate	175.6697		175.6697	
Conversion Price	$5.69		$5.69	
Maturity date	July 1, 2022		July 1, 2022	
Risk-free interest rate	2.0	%	2.8	%
Estimated stock volatility	87	%	65	%
Estimated credit spread	20	%	33	%

The following table sets forth the value of the 2022 Notes with and without the embedded derivative and the fair value of the embedded derivative (in thousands).

	December 31, 2014	December 31, 2013
Fair value of 2022 Notes:		
With the embedded derivative	$19,449	$15,925
Without the embedded derivative	19,449	12,455
Estimated fair value of the embedded derivative	$-	$3,470

Changes in certain inputs into the lattice model can have a significant impact on changes in the estimated fair value of the embedded derivative. For example, the estimated fair value of the embedded derivative will generally decrease with: (i) a decline in the stock price; (ii) decreases in the estimated stock volatility; and (iii) a decrease in the estimated credit spread. From the date the 2022 Notes were issued through December 31, 2012, we observed a significant decline in the market price of our common stock which resulted in a $17.0 million decrease in the estimated fair value of our embedded derivatives from issuance through December 31, 2012. During the year ended December 31, 2013, the decrease in the stock price, partially offset by a decrease in the estimated stock volatility resulted in a $3.1 million decrease in the estimated fair value of our embedded derivatives. During the year ended December 31, 2014, the decline in the stock price and the increase in the estimated stock volatility, partially offset by the increase in credit spread resulted in a $3.5 million decrease in the estimated fair value of our embedded derivatives. These changes in the estimated fair value of the embedded derivative represent unrealized gains, which have been recorded as gains from change in fair value of embedded derivative in the consolidated statements of operations.

Derivative Warrant Liability

In December 2013, we sold 21,303,750 common stock units. Each common stock unit consisted of one share of our common stock and a warrant to purchase one share of the Company's common stock ("2013 Warrants"). The agreement governing the 2013 Warrants includes the following terms:

at December 31, 2014, the 2013 Warrants had an exercise price of $1.43 per share, subject to adjustment for certain events, including the issuance of stock dividends on the Company's common stock and, in certain instances, the issuance of the Company's common stock or instruments convertible into the Company's common stock at a price per share less than the exercise price of the 2013 Warrants (as a result of the public offering of common stock units in February 2015, these anti-dilution provisions were triggered and the exercise price of the 2013 Warrants have now decreased to $1.02 per share);

the 2013 Warrants have an expiration date of December 16, 2018;

a holder of 2013 Warrants may exercise the warrants through a cashless exercise if, and only if, the Company does not have an effective registration statement then available for the issuance of the shares of our common stock. If an effective registration statement is available for the issuance of our common stock a holder may only exercise the 2013 Warrants through a cash exercise;

the exercise price and the number and type of securities purchasable upon exercise of the 2013 Warrants are subject to adjustment upon certain corporate events, including certain combinations, consolidations, liquidations, mergers, recapitalizations, reclassifications, reorganizations, stock dividends and stock splits, a sale of all or substantially all of our assets and certain other events; and in the event of an extraordinary transaction (as defined in the 2013 Warrant Agreement) generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our common stock, the Company or any successor entity will pay the 2013 Warrant holder, at such holder's option, exercisable at any time concurrently with or within 30 days after the consummation of the extraordinary transaction, an amount of cash equal to the value of such holder's warrants as determined in accordance with the Black Scholes option pricing model and the terms of the 2013 Warrants.

In August 2014, the Company sold 30,000,000 shares of common stock and warrants to purchase an additional 15,000,000 shares of common stock (the "2014 Warrants"). The agreement governing the 2014 Warrants includes the following terms:

the 2014 Warrants currently have an exercise price of $0.64 per share, subject to adjustment for certain events, including the issuance of stock dividends on the Company's common stock and, in certain instances, the issuance of the Company's common stock or instruments convertible into the Company's common stock at a price per share less than the exercise price of the 2014 Warrants;

the 2014 Warrants have an expirations date of August 5, 2019;

a holder of 2014 Warrants may exercise the warrants through a cashless exercise if, and only if, the Company does not have an effective registration statement then available for the issuance of the shares of its common stock. If an effective registration statement is available for the issuance of its common stock a holder may only exercise the 2014 Warrants through a cash exercise;

the exercise price and the number and type of securities purchasable upon exercise of the 2014 Warrants are subject to adjustment upon certain corporate events, including certain combinations, consolidations, liquidations, mergers, recapitalizations, reclassifications, reorganizations, stock dividends and stock splits, a sale of all or substantially all of the Company's assets and certain other events; and

in the event of an extraordinary transaction (as defined in the 2014 Warrant Agreement) generally including any merger with or into another entity, sale of all or substantially all of the Company's assets, tender offer or exchange offer, or reclassification of its common stock, the Company or any successor entity will pay the 2014 Warrant holder, at such holder's option, exercisable at any time concurrently with or within 30 days after the consummation of the extraordinary transaction, an amount of cash equal to the value of such holder's warrants as determined in accordance with the Black Scholes option pricing model and the terms of the 2014 Warrants.

Based on these terms, the Company has determined that the 2013 and 2014 Warrants (together, the "Warrants") qualify as a derivatives and, as such, are presented as derivative warrant liability on the consolidated balance sheets and recorded at fair value each reporting period. The fair value of the Warrants was estimated to be $3.1 million and $7.2 million as of December 31, 2014 and 2013, respectively. During the year ended December 31, 2014, the decrease in the estimated fair value of the Warrants represents an unrealized gain of $6.5 million, which has been recorded as a gain from the change in fair value of derivative warrant liability in the consolidated statements of operations. During the year ended December 31, 2013, the increase in the estimated fair value of the Warrants represents an unrealized loss of $3.2 million, which has been recorded as a loss from the change in fair value of derivative warrant liability in the consolidated statements of operations.

Impairment of Property, Plant and Equipment

Our property, plant and equipment consist primarily of assets associated with the acquisition and Retrofit of the Agri-Energy Facility. We assess impairment of property, plant and equipment for recoverability when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances applicable to our current stage of operations which could trigger a review include, but are not limited to: (i) significant decreases in the market price of the asset; (ii) significant adverse changes in the business climate or legal or regulatory factors; (iii) accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; and (iv) expectations that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life. The carrying amount of a long-lived asset is considered to be impaired if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset.

We evaluated our Agri-Energy Facility for impairment as of December 31, 2014. This evaluation included comparing the carrying amount of the acquisition and Retrofit of the Agri-Energy Facility to the estimated undiscounted future cash flows at the Agri-Energy Facility as this represents the lowest level of identifiable cash flows. Significant assumptions included in the estimated undiscounted future cash flows include, among others, estimates of the:

- sales price of isobutanol and by-products such as dried distiller’s grains;
- purchase price of corn;
- production levels of isobutanol;

capital and operating costs to produce isobutanol; and
estimated useful life of the primary asset.

Factors which can impact these assumptions include, but are not limited to;

effectiveness of our technology to produce isobutanol at targeted margins;
demand for isobutanol and oil prices; and
harvest levels of corn.

Based upon our evaluation at December 31, 2014, we concluded that the estimated undiscounted future cash flows from Agri-Energy exceeded the carrying value of the Agri-Energy Facility and, as such, these assets were not impaired. Although our cash flow forecasts are based on assumptions that are consistent with our planned use of the assets, these estimates required significant exercise of judgment and are subject to change in future reporting periods as facts and circumstances change. Additionally, we may make changes to our business plan that could result in changes to the expected cash flows. As a result, it is possible that a long- lived asset may be impaired in future reporting periods.

Stock-Based Compensation

Our stock-based compensation expense includes expenses associated with share-based awards granted to employees, board members and non-employees and expenses associated with our employee stock purchase plan ("ESPP"). The estimated fair value of stock options and ESPP awards is determined on the date of grant and recorded to expense over the requisite service period, generally the vesting period. We estimate the fair value of stock option awards using the Black-Scholes option-pricing model which requires judgments to be made, including estimating: (i) the expected life of an award; (ii) stock price volatility; and (iii) prior to our initial public offering in February 2011, the fair value of our common stock.

The Black-Scholes option-pricing model calculates the estimated fair value of stock options using the following inputs: (i) expected stock option life; (ii) expected volatility; (iii) risk-free interest rate; (iv) expected dividend yield rate; (v) exercise price; and (vi) closing price of our common stock on the date of grant.

Due to our limited history of grant activity, we use the "simplified method" permitted by the SEC to estimate the expected stock option life as the arithmetic average of the total contractual term of the option and its vesting period. We calculate the estimated volatility rate based on selected comparable public companies, due to a lack of historical information regarding the volatility of our stock price. We will continue to analyze the historical stock price volatility assumption as more historical data for our common stock becomes available. The risk-free interest rate assumption is based on the U.S. Treasury yield curve in effect on the date of grant for instruments with a term similar to the expected life of the related option. No dividends are expected to be paid.

The estimated fair value of a stock option using the Black-Scholes option-pricing model is impacted significantly by changes in a company's stock price. For example, all other assumptions being equal, the estimated fair value of a stock option will increase as the closing price of a company's stock increases, and decrease as the closing price of a company's stock decreases. Prior to the closing of our initial public offering, we were a private company and, as such, we were required to estimate the fair value of our common stock. In the absence of a public trading market, we determined a reasonable estimate of the then-current fair value of our common stock for purposes of granting stock-based compensation based on multiple criteria. We determined the fair value of our common stock utilizing methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Practice Aid, "Valuation of Privately-Held-Company Equity Securities Issued as Compensation." After the closing of our initial public offering in February 2011, the fair value of our common stock is no longer an estimate as it is based upon the closing price of our stock on the date of grant.

Revenue Recognition

Following our acquisition of Agri-Energy on September 22, 2010, we have primarily derived revenue from the sale of ethanol, distiller's grains and other related products produced as part of the ethanol production process at the Agri-Energy Facility. The production of ethanol alone is not our intended business and our future strategy is expected to depend on our ability to produce and market isobutanol and products derived from isobutanol. Revenue from the sale of ethanol, hydrocarbons or excess corn inventory is recognized when all of the following criteria are satisfied: persuasive evidence of an arrangement exists; risk of loss and title is transferred to the customer; the price is fixed or determinable; and collectability is reasonably assured. Ethanol and related products are generally shipped free on board shipping point. Collectability of revenue is reasonably assured based on historical evidence of collectability between us and our customers.

Revenue related to our government research grants and cooperative agreements is recognized in the period during which the related costs are incurred or over the contract period, provided that the conditions under the awards have been met and only perfunctory obligations are outstanding.

Results of Operations

Comparison of the years ended December 31, 2014 and 2013 (in thousands)

	Years Ended December 31, 2014	2013	Change
Revenue and cost of goods sold			
Ethanol sales and related products, net	$23,549	$-	$23,549
Hydrocarbon revenue	3,949	2,157	1,792
Grant and other revenue	768	2,722	(1,954)
Corn sales	-	3,345	(3,345)
Total revenues	28,266	8,224	20,042
Cost of corn sales	-	3,391	(3,391)
Cost of goods sold	35,582	14,522	21,060
Gross loss	(7,316)	(9,689)	2,373
Operating expenses			
Research and development	14,120	20,179	(6,059)
Selling, general, administrative and other	18,341	25,548	(7,207)
Other operating expenses	-	99	(99)
Total operating expenses	32,461	45,826	(13,365)
Loss from operations	(39,777)	(55,515)	15,738
Other (expense) income			
Interest expense	(8,255)	(9,301)	1,046
Interest expense - debt issuance costs	(3,769)	-	(3,769)
Loss on conversion of debt	-	(2,038)	2,038
Gain from change in fair value of embedded derivative of the 2022 Notes	3,470	3,114	356
Gain (loss) from change in fair value of derivative warrant liability	6,530	(3,195)	9,725
Gain from change in fair value of 2017 Notes	648	-	648
Other income	8	129	(121)
Total other expense	(1,368)	(11,291)	9,923
Net loss	$(41,145)	$(66,806)	$25,661

Revenue. During the year ended December 31, 2014, we recognized revenue of $23.5 million associated with the sale of 10.3 million gallons of ethanol and related products. During the year ended December 31, 2014, the focus of our isobutanol production was on shipments for use at the demonstration plant located at South Hampton’s facility near Houston, Texas to produce hydrocarbons and optimize specific parts of our technology to further enhance isobutanol production rates.

Hydrocarbon revenue increased during the year ended December 31, 2014 primarily as a result of the shipment of bio-PX to Toray Industries in the second quarter of 2014, for which we recognized $1.5 million of revenue, including $1.0 million related to a payment we received from Toray Industries in 2012 for the design and construction of our bio-PX demo plant. Included in grant and other revenue is revenue associated with research and development and government grant agreements. Grant and other revenue decreased in 2014 as a result of certain revenues granted in 2013 not being received in 2014. Corn sales for the year ended December 31, 2013 relate to a one-time sale of excess corn inventory on hand during that period.

Cost of goods and corn sold. Our cost of goods sold during the year ended December 31, 2014 included $31.6 million associated with the production and sale of ethanol and isobutanol optimization costs and $4.0 million in depreciation expense. The increase in cost of goods sold is related to the production of ethanol and increased production of hydrocarbon products during the year. Our cost of goods and corn sold during the year ended December 31, 2013 primarily includes the following: (i) $11.9 million in startup costs and fixed production costs of our Agri-Energy Facility; (ii) $3.4 million associated with costs related to the sale of excess corn inventory; (iii) $2.1 million in depreciation expense; and (iv) $0.5 million in non-cash expenses associated with the write-down of our corn inventory and changes in the fair value of our corn forward contracts.

Research and development. Research and development expenses decreased during the year ended December 31, 2014 primarily due to a $2.9 million decrease related to hydrocarbon related activities and a $2.8 million decrease related to reductions in salaries, consultant, contract staff and travel expenses. For the year ended December 31, 2013, research and development expenses related to the production of hydrocarbons included costs that were incurred to (i) increase our biojet fuel processing capability, (ii) test production quantities of biojet fuel for the U.S. Air Force, U.S. Army and U.S. Navy and (iii) establish a bio-PX demonstration plant under our agreement with Toray Industries.

Selling, general, administrative and other. The decrease in selling, general, administrative and other expenses during the year ended December 31, 2014 resulted from decreases of $2.8 million in salary and compensation-related expenses associated with an overall reduction in force, $3.6 million in legal-related expenses, including expenses in support of our ongoing litigation with Butamax, and $0.5 million in other selling, general and administrative expenses.

Interest expense. Interest expense increased during the year ended December 31, 2014 primarily as a result of interest expense associated with the private debt financing of the 2017 Notes with Whitebox Advisors, LLC.

Loss on conversion of debt. During the year ended December 31, 2013, holders of $18.1 million principal amount of 2022 Notes opted to convert their holdings into shares of our common stock. Upon conversion, the 2022 Note holders received 3,179,608 shares of our common stock in payment of converted principal and, pursuant to the terms of the Indenture, the 2022 Note holders also received 2,957,775 shares of our common stock in settlement of Coupon Make-Whole Payments of $4.9 million. For the year ended December 31, 2013, we recorded a loss on conversion of debt of $2.0 million as a result of the conversion of the 2022 Notes and settlement of the Coupon Make-Whole Payments.

Gain from change in fair value of 2022 embedded derivatives. During the year ended December 31, 2014, we reported a $3.5 million gain associated with the decrease in the fair value of derivatives embedded in the 2022 Notes primarily resulting from a decline in the price of our common stock between December 31, 2013 and December 31, 2014. During the year ended December 31, 2013, we reported a $3.1 million gain associated with the decrease in the fair value of derivatives embedded in our 2022 Notes primarily resulting from a decrease in the price of our common stock between December 31, 2012 and December 31, 2013.

Gain (loss) from change in fair value of derivative warrant liability. In December 2013 and August 2014, we issued warrants to purchase our common stock, which are recorded at fair value each reporting period. During the year ended December 31, 2014, the estimated fair value of the derivative warrant liability decreased primarily associated with the decline in the price of our common stock between December 31, 2013 and December 31, 2014, resulting in the recognition of a $6.5 million unrealized gain for the year ended December 31, 2014. During the year ended December 31, 2013, the estimated fair value of the derivative warrant liability increased primarily associated with the increase in the price of our common stock between December 31, 2012 and December 31, 2013, resulting in the recognition of a $3.2 million unrealized loss for the year ended December 31, 2013.

Gain from change in fair value of 2017 Notes. During the year ended December 31, 2014, we reported a $0.6 million gain associated with the decrease in fair value of the 2017 Notes, primarily a result of a decline in the price of our common stock between December 31, 2013 and December 31, 2014.

Comparison of the years ended December 31, 2013 and 2012 (in thousands)

	Years Ended December 31, 2013	2012	Change
Revenue and cost of goods sold			
Ethanol sales and related products, net	$-	$19,908	$(19,908)
Hydrocarbon revenue	2,157	650	1,507
Grant and other revenue	2,722	2,818	(96)
Corn sales	3,345	1,009	2,336
Total revenues	8,224	24,385	(16,161)
Cost of corn sales	3,391	918	2,473
Cost of goods sold	14,522	31,492	(16,970)
Gross loss	(9,689)	(8,025)	(1,664)
Operating expenses			
Research and development	20,179	19,431	748
Selling, general, administrative and other	25,647	43,981	(18,334)
Total operating expenses	45,826	63,412	(17,586)
Loss from operations	(55,515)	(71,437)	15,922
Other (expense) income			
Interest expense	(9,301)	(6,338)	(2,963)
Loss on conversion of debt	(2,038)	-	(2,038)
Gain from change in fair value of embedded derivative of 2022 Notes	3,114	17,000	(13,886)
Loss from change in fair value of derivative warrant liability	(3,195)	-	(3,195)
Other income	129	63	66
Total other (expense) income	(11,291)	10,725	(22,016)
Net loss	$(66,806)	$(60,712)	$(6,094)

Revenue. During the year ended December 31, 2013, we did not make any shipments or report any sales of ethanol as our focus during this period was on optimizing specific parts of our technology to further enhance isobutanol production rates and resuming the limited production of isobutanol at our Agri-Energy Facility for use at the demonstration plant located at South Hampton's facility near Houston, Texas to produce biojet fuel,. During the year ended December 31, 2012, we generated revenue of $19.9 million from the sale of ethanol and related products at our Agri-Energy Facility.

Hydrocarbon revenue increased during the year ended December 31, 2013 as we produced and shipped more biojet fuel to the U.S. military in 2013 compared with 2012. Included in grant and other revenue is revenue associated with research and development and government grant agreements. Corn sales during 2013 and 2012 relate to the sale of excess corn inventory on hand.

Cost of goods and corn sold. Our cost of goods and corn sold during the year ended December 31, 2013 primarily includes the following: (i) $11.9 million in startup costs and fixed production costs of our Agri-Energy Facility;

(ii) $3.4 million associated with costs related to the sale of excess corn inventory; (iii) $2.1 million in depreciation expense; and (iv) $0.5 million in non-cash expenses associated with the write-down of our corn inventory and changes in the fair value of our corn forward contracts. Our cost of goods sold during the year ended December 31, 2012 primarily resulted from $22.0 million of costs related to the production of ethanol and distiller's grains. We also incurred $6.6 million of startup costs related to isobutanol production at our Agri-Energy Facility.

Research and development. Research and development expenses increased during the year ended December 31, 2013 primarily due to a $4.4 million increase in costs at the demonstration plant located at South Hampton's facility that were incurred to increase our biojet fuel processing capability, costs for the production of test quantities of biojet fuel for the U.S. Air Force, U.S. Army and U.S. Navy and the cost to establish a bio-PX demonstration plant under our agreement with Toray Industries. This was partially offset by the following decreases: (i) $1.5 million in costs associated with laboratory consultants and supplies; (ii) $1.4 million in salary and other compensation-related expenses; and (iii) $0.5 million associated with a license fee to Cargill that was incurred in 2012.

Selling, general, administrative and other. The decrease in selling, general, administrative and other expenses during the year ended December 31, 2013 primarily resulted from the following decreases: (i) $9.4 million in salary and compensation-related expenses, including $4.5 million associated with stock-based compensation; (ii) $6.2 million in legal-related expenses including expenses in support of our ongoing litigation with Butamax; (iii) $2.4 million in other general and administrative costs, including consulting, marketing and website advertising; and (iv) $0.8 million in travel-related expenses. This was partially offset by an increase of $0.7 million in public company-related expenses. Salary and compensation-related expenses for the year ended December 31, 2012 included severance related payments of $1.6 million and a $2.6 million expense resulting from the accelerated vesting of warrants due to the departure of three of our Executive Vice Presidents.

Interest expense. Interest expense increased during the year ended December 31, 2013 primarily resulting from increases of $0.7 million and $3.0 million related to cash interest and non-cash amortization of debt issue costs and discounts, respectively, associated with our Convertible Notes. This increase was partially offset by a decrease of $0.9 million in cash and non-cash interest expense primarily associated with the decline in the outstanding principal balance of our debt with TriplePoint due to scheduled payments on our principal balance. We also incurred $0.2 million of non-cash interest expense from the write-off of debt discounts and issue costs associated with the payoff of $5.1 million in principal to TriplePoint in December 2013.

Loss on conversion of debt. During the year ended December 31, 2013, holders of $18.1 million principal amount of 2022 Notes opted to convert their holdings into shares of our common stock. Upon conversion, the 2022 Note holders received 3,179,608 shares of our common stock in payment of converted principal and, pursuant to the terms of the Indenture, the 2022 Note holders also received 2,957,775 shares of our common stock in settlement of Coupon Make-Whole Payments of $4.9 million. We recorded a loss on conversion of debt of $2.0 million as a result of the conversion of the 2022 Notes and settlement of the Coupon Make-Whole Payments.

Gain from change in fair value of 2022 embedded derivatives. During the year ended December 31, 2013, we reported a $3.1 million gain associated with the decrease in the fair value of derivatives embedded in our 2022 Notes primarily resulting from decreases in our stock price from December 31, 2012 to December 31, 2013. During the year ended December 31, 2012, we reported a $17.0 million gain associated with the decrease in the fair value of derivatives embedded in our 2022 Notes primarily resulting from a decline in the price of our common stock between the date that the 2022 Notes were issued and December 31, 2012.

Loss from change in fair value of derivative warrant liability. In December 2013, we issued the 2013 Warrants to purchase our common stock which are recorded at fair value each reporting period. The increase in the estimated fair value of the 2013 Warrants between the date of issuance and December 31, 2013 represents an unrealized loss and was driven by an increase in the quoted market prices of the 2013 Warrants.

Liquidity and Capital Resources

For the year ended December 31, 2014, we incurred a consolidated net loss of $41.1 million and had an accumulated deficit of $303.3 million. Our cash and cash equivalents at December 31, 2014 totaled $6.4 million which is primarily being used for the following: (i) operating activities and startup production of isobutanol at our Agri-Energy Facility; (ii) operating activities at our corporate headquarters in Colorado, including research and development work; (iii) capital improvements primarily associated with the Agri-Energy Facility; (iv) costs associated with optimizing isobutanol production technology; (v) costs associated with the ongoing litigation with Butamax; and (vi) debt service obligations. We expect to incur future net losses as we continue to fund the development and commercialization of our product candidates. Our transition to profitability is dependent upon, among other things, the successful development and commercialization of our product candidates and the achievement of a level of revenues adequate to support our existing cost structure. We may never achieve profitability or generate positive cash flows, and unless and until we do, we will continue to need to raise additional cash. Management intends to fund future operations through additional private and/or public offerings of debt or equity securities. In addition, management may seek additional capital through arrangements with strategic partners or from other sources, it may seek to restructure our secured debt and it will continue to address the Company's cost structure. Notwithstanding, there can be no assurance that we will be able to raise additional funds, or achieve or sustain profitability or positive cash flows from operations. Based on our operating plan, existing working capital at December 31, 2014 was not sufficient to meet the cash requirements to fund planned operations through December 31, 2015 without additional sources of cash. These conditions raise substantial doubt about our ability to continue as a going concern. See Note 20 in Item 8, Financial Statements and Supplementary Data, of this Report for additional information on the Company's issuance of common stock units subsequent to December 31, 2014.

Despite our continued success in meeting isobutanol fermentation targets, producing isobutanol and ethanol simultaneously and our progress toward achieving breakeven earnings before interest, taxes, depreciation and amortization (EBITDA) at the Agri-Energy Facility, we continue to face significant expenses related to the ongoing litigation with Butamax. While the U.S. Supreme Court recently ruled in our favor and overturned an earlier Federal Circuit Court of Appeals ruling on the interpretation of key claims related to certain patents, trials related to other patents were recently scheduled for August 2015 and April 2016, and we expect to incur significant costs preparing for and participating in these upcoming trials. We continue to believe that the Butamax complaints are without merit. However, if we are unable to raise the significant funds that will be required to continue to defend our intellectual property rights, we could be forced to change our business strategy which may include one or more of the following: (i) terminating the research and development, manufacture, sale and use of products that include the subject intellectual property; (ii) conducting research and development and manufacturing any products that include the subject intellectual property outside of the U.S.; (iii) shifting our focus to the production of ethanol and/or the development of hydrocarbon products, including those that can be produced from ethanol; or (iv) pursuing strategic alternatives, including the monetization of some or all of our assets, in order to maximize stockholder value.

In August 2014, we issued and sold 30,000,000 shares of common stock and warrants to purchase an additional 15,000,000 shares of common stock in a firm commitment underwritten public offering. The warrants were issued with an exercise price of $0.85 per share and will be exercisable from the date of the original issuance and will expire on August 5, 2019. The shares of common stock and the warrants were sold together as common stock units ("Units") for a purchase price of $0.60 per Unit, but were immediately separable and issued separately. The gross proceeds to Gevo from this offering were approximately $18 million, not including any future proceeds from the exercise of the warrants. The warrants have certain anti-dilution provisions. As result of the public offering of common stock units in February 2015, these anti-dilution provisions were triggered and the exercise price of the warrants has decreased to $0.64 per share.

In May 2014, we entered into the Loan Agreement with certain Lenders and Whitebox, as administrative agent for the Lenders, pursuant to which the Lenders committed to provide one or more senior secured term loans to us, in an aggregate amount of up to approximately $31.1 million on the terms set forth in the Loan Agreement. Pursuant to the Loan Agreement, on May 9, 2014, we closed a private debt financing with Whitebox consisting of the First Advance of $25.9 million, the outstanding principal amount of which was subsequently exchanged, by Whitebox into $26.1 million of our 2017 Notes. We used proceeds from the Term Loan to repay $9.6 million in outstanding principal under our additional term loan facilities with TriplePoint, with the remaining outstanding principal balance of $1.0 million being junior secured debt payable over 36 months beginning June 2014.

In December 2013, we issued and sold 21,303,750 common stock units at an offering price of $1.35 per common stock unit in a firm commitment underwritten public offering. Each common stock unit consisted of one share of the Company's common stock and a 2013Warrant to purchase one share of the Company's common stock at an exercise price of $1.85. The 2013 Warrants have certain anti-dilution provisions. As result of the debt financing arrangement with Whitebox and the public offering of common stock units in August 2014 and February 2015, these anti-dilution provisions were triggered and the exercise price of the 2013 Warrants has decreased to $1.02 per share.

The December 2013 offering resulted in net proceeds of $26.8 million after deducting $2.0 million in underwriting discounts and commissions and other offering costs. We used $5.1 million of the proceeds from this offering in December 2013 to repay outstanding principal to TriplePoint under the Original Agri-Energy Loan Agreement.

In July 2012, we issued: (i) 12.5 million shares of common stock at an offering price of $4.95 per share; and (ii) $45.0 million aggregate principal amount of 2022 Notes, in each case in a firm commitment underwritten public offering (the "2012 Equity Offering" and the "Note Offering," respectively, and together, the "2012 Offerings"). We received proceeds from the 2012 Offerings of $98.4 million, net of expenses and fees to underwriters. We used $5.4 million of the proceeds from the Note Offering to pay in full all amounts outstanding under the Gevo Loan Agreement. As of December 31, 2014, $18.1 million in principal amount of 2022 Notes have been converted and, as such, we had an aggregate of $26.9 million in principal amount of 2022 Notes outstanding as of that date.

In February 2011, we completed our initial public offering issuing 8,222,500 shares of common stock at an offering price of $15.00 per share, resulting in net proceeds of $110.4 million, after deducting underwriting discounts and commissions and other offering costs.

The creation or continuation and success of new and/or existing joint ventures, including our joint venture with Redfield, licensing arrangements, tolling arrangements and acquisition agreements involving ethanol plant assets for Retrofit to isobutanol production are each subject to our raising additional capital through future public and private equity offerings, debt financings or through other alternative financing arrangements. In addition, successful completion of our research and development programs and the attainment of profitable operations are dependent upon future events, including completion of our development activities resulting in sales of isobutanol or isobutanol-derived products and/or technology, achieving market acceptance and demand for our products and services and attracting and retaining qualified personnel.

Additionally, negative decisions by courts associated with pending litigation could also negatively impact our future results of operations and cash flows. Specifically, negative decisions by the courts could force us to do one or more of the following:

- stop selling, incorporating, manufacturing or using our products that use the subject intellectual property;
- obtain from a third party asserting its intellectual property rights, a license to sell or use the relevant technology, which license may not be available on reasonable terms, or at all;
- redesign those products or processes, such as our process for producing isobutanol, that use any allegedly infringing or misappropriated technology, which may result in significant cost or delay to us, or which redesign could be technically infeasible; or
- pay damages, including the possibility of treble damages in a patent case if a court finds us to have willfully infringed certain intellectual property rights.

Although the Delaware District Court has temporarily stayed the litigation with Butamax involving the '188 Patent and the '889 Patent, on September 3, 2014 the Delaware District Court issued an order, setting a trial date of August 24, 2015 for Case Nos. 1:12-cv-01036-SLR, 1:12-cv-01200-SLR and 1:12-cv-01300-SLR, and a trial date of April 25, 2016 for Case Nos. 1:12-cv-00298-SLR, 1:12-cv-00602-SLR and 1:12-cv-01014-SLR. As a result of this order, we expect to continue to incur significant costs related to the upcoming trials.

Due to the nature and stage of our litigation with Butamax, we have determined that the possible loss or range of losses related to such litigation cannot be reasonably estimated at this time. We expect to continue to incur significant costs through the foregoing trial dates. For a summary of our ongoing litigation with Butamax and related parties, see the disclosure under the heading "Legal Matters" in Part I, Item 3 of this Report, and for additional risks we face as a result of the litigation with Butamax, see the disclosure under the heading "Risk Factors" in Part I, Item 1A of this Report.

The following table sets forth the major sources and uses of cash for each of the periods set forth below (in thousands):

	Year Ended December 31,		
	2014	2013	2012
Net cash used in operating activities	$(38,990)	$(47,048)	$(68,058)
Net cash used in investing activities	(7,505)	(7,675)	(53,039)
Net cash provided by financing activities	28,229	12,604	93,616

Operating Activities

Our primary uses of cash from operating activities are personnel-related expenses and research and development-related expenses including costs incurred under development agreements, costs for licensing of technology, legal-related costs and expenses for the production of isobutanol, ethanol and related products, logistics and further processing of ethanol and isobutanol at the Agri-Energy Facility and for the operation of our hydrocarbon demonstration production facility.

During the year ended December 31, 2014, we used $39.0 million in cash from operating activities primarily resulting from a net loss of $41.1 million, excluding the impact of $5.0 million in non-cash expenses, and $2.9 million associated with an increase in working capital, primarily a result of a decrease in accounts payable and increase in accounts receivable.

During the year ended December 31, 2013, we used $47.0 million in cash from operating activities primarily resulting from a net loss of $51.4 million, excluding the impact of $15.4 million in non-cash expenses. This was partially offset by a decrease in inventory which generated $2.1 million in cash in 2013 and an increase in accounts payable and accrued liabilities. The decrease in inventory during 2013 primarily resulted from the sale of excess corn inventory during the first half of 2013, partially offset by the purchase of corn in preparation for the resumption of isobutanol production at the Agri-Energy Facility. Our accounts payable and accrued liabilities increased primarily due to the additional design features and other costs at the Agri-Energy Facility.

During the year ended December 31, 2012, we used $68.1 million from operating activities resulting from a net loss of $64.2 million, excluding the impact of $3.4 million in gains from non-cash transactions and $3.9 million primarily associated with changes in working capital. We used $2.8 million to increase our inventory balance at December 31, 2012 as compared with 2011. The increase in inventory was primarily driven by the purchase of corn during 2012 in anticipation of recommencing the production of ethanol at the Agri-Energy Facility in the fourth quarter. We also used $2.8 million to reduce our accounts payable and accrued liabilities, primarily associated with payables for corn at December 31, 2011 that were paid for during the first quarter of 2012. Further, our accounts receivable balance was reduced by $2.2 million due to the collection of receivables, primarily resulting from sales of ethanol during the fourth quarter of 2011 that were collected in 2012. We did not have any sales of ethanol or related products in the fourth quarter of 2012, following the commencement of isobutanol startup activities in the second quarter of 2012 and our decision to pause those operations in the third quarter of 2012.

Investing Activities

During the year ended December 31, 2014, we used $7.5 million in cash from investing activities. We used $4.9 million related to capital expenditures at our Agri-Energy Facility and $2.6 million of restricted deposits required from the 2017 Notes agreement.

During the year ended December 31, 2013, we used $7.7 million in cash from investing activities. We used $9.8 million in cash primarily associated with capital expenditures to optimize specific parts of our technology at our Agri-Energy Facility, partially offset by a $2.0 million sales tax refund that was received in connection with capital equipment purchases.

During the year ended December 31, 2012, we used $53.0 million in cash from investing activities primarily due to the following: (i) $49.5 million associated with the Retrofit of the Agri-Energy Facility to isobutanol production; (ii) $2.9 million for the acquisition of property and laboratory equipment; and (iii) $0.6 million for the purchase of patents and for planning work associated with the planned Retrofit of the Redfield.

Financing Activities

During the year ended December 31, 2014, we generated $28.2 million in cash from financing activities primarily related to the borrowing of $25.9 million under the Term Loan and $18.0 million in proceeds from issuance of common stock, offset by $9.7 million in principal payments to Triplepoint, $3.8 million in debt offering costs incurred primarily in connection with the issuance of the Term Loan, and $2.0 million in equity offering costs incurred in connection with the issuance of stock in August 2014.

During the year ended December 31, 2013, we generated $12.6 million in cash from financing activities primarily related to $27.1 million in net proceeds from issuance of common stock, offset by $14.5 million payments in principal payments to Triplepoint.

During the year ended December 31, 2012, we generated $93.6 million in cash from financing activities primarily resulting from the following: (i) $98.4 million associated with the 2012 Offerings, net of issue costs and discounts; (ii) $4.9 million borrowed under the Amended Agri-Energy Loan Agreement, net of issue costs; and (iii) $0.9 million from the exercise of stock options. Partially offsetting these sources of cash was $10.4 million in principal payments on our secured debt with TriplePoint and Lighthouse Capital Partners V, L.P. (“Lighthouse”). During the year ended December 31, 2012, we paid Lighthouse $1.2 million as payment in full of all amounts outstanding to Lighthouse and we paid TriplePoint $5.4 million from the proceeds from the Note Offering to pay in full all amounts outstanding under the Gevo Loan Agreement.

Agri-Energy Retrofit

In September 2010, we acquired the Agri-Energy Facility which we Retrofit for the production of isobutanol. As of December 31, 2014, we have incurred capital costs of approximately $65.6 million on the Retrofit of the Agri-Energy Facility. The Retrofit of the Agri-Energy Facility includes a number of additional capital costs that are unique to the design of the facility, including additional equipment that we believe will allow us to switch between ethanol and isobutanol production, modifications to increase the potential production capacity of GIFT® at the Agri-Energy Facility and the establishment of an enhanced yeast seed train to accelerate the adoption of improved yeast at the Agri-Energy Facility and at future plants. Capital expenditures at the Agri-Energy Facility also include upfront design and engineering costs, plant modifications identified as necessary during initial startup operations for the production of isobutanol as well as capitalized interest. In May 2012, we commenced initial startup operations for the production of isobutanol at the Agri-Energy Facility. In September 2012, as a result of a lower than planned production rate of isobutanol we made the strategic decision to pause isobutanol production at the Agri-Energy Facility at the conclusion of startup operations to focus on optimizing specific parts of the process to further enhance isobutanol production rates. In 2013, we modified our Agri-Energy Facility which we believe will allow us to increase the production rates. In June 2013, we resumed the limited production of isobutanol operating one fermenter and one GIFT® separation system in order to (i) verify that the modifications had significantly reduced the previously identified infections, (ii) demonstrate that our biocatalyst performs in the one million liter fermenters at the Agri-Energy Facility, and (iii) confirm GIFT® efficacy at commercial scale at the Agri-Energy Facility. In August 2013, we expanded production capacity at the Agri-Energy Facility by adding a second fermenter and second GIFT® system to further verify our results with a second configuration of equipment. For these initial production runs, we demonstrated fermentation operations at commercial scale combined with the use of our GIFT® separation system using a dextrose (sugar) feedstock. Based on the results of these initial production runs, in October 2013 we began commissioning the Agri-Energy Facility on corn mash to test isobutanol production run rates and to optimize biocatalyst production, fermentation separation and water management systems. In March 2014, we decided to leverage the flexibility of our GIFT® technology and further modify the Agri-Energy Facility to enable the simultaneous production of isobutanol and ethanol. In July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. In line with our strategy to maximize asset utilization and site cash flows, this configuration of the plant should allow us to continue to optimize our isobutanol technology at a commercial scale, while taking advantage of potentially superior ethanol contribution margins. Also with a view to maximizing site cash flows, over certain periods of time, we may and have operated the plant for the sole production of ethanol across all four fermenters.

Redfield Energy, LLC

In June 2011, we entered into the Joint Venture Documents with Redfield. Under the terms of the Joint Venture Documents, we agreed to work with Redfield to Retrofit Redfield’s approximately 50 MGPY ethanol production facility located near Redfield, South Dakota for the commercial production of isobutanol. Under the terms of the Joint Venture Agreement, Redfield has issued 100 Class G Units to our wholly-owned subsidiary, Gevo Development. Gevo Development is the sole holder of Class G units, which entitle Gevo Development to certain information and governance rights with respect to Redfield, including the right to appoint two members of Redfield’s 11-member board of managers. The Class G units currently carry no interest in the allocation of profits, losses or other distributions of Redfield and no voting rights. According to the terms of the Joint Venture Agreement, such rights will vest upon the commencement of commercial isobutanol production at the Redfield Facility, at which time we anticipate that commercial isobutanol production will become the most significant activity for the entity and, as a result, that consolidation of Redfield’s operation will be possible.

We will be responsible for all costs associated with the Retrofit of the Redfield Facility. Redfield will remain responsible for certain expenses relating to the Redfield facility, including certain repair and maintenance expenses and any costs necessary to ensure that the facility is in compliance with applicable environmental laws. We anticipate that the Redfield Facility will continue its current ethanol production activities during much of the Retrofit. Following installation of the Retrofit assets, the ethanol production operations will be suspended to begin the Performance Testing Phase. Under the terms of the Joint Venture Agreement, during the Performance Testing Phase, we will be entitled to receive all revenue generated by the Redfield Facility and are obligated to make Facility Payments (as defined in the Joint Venture Agreement) to Redfield which payments include the costs incurred by Redfield to operate the facility plus the profits, if any, that Redfield would have received if the facility had been producing ethanol during that period. We have also agreed to maintain an escrow fund during the Performance Testing Phase as security for our obligation to make the Facility Payments.

If certain conditions are met, commercial production of isobutanol at the Redfield Facility will begin upon the earlier of the date upon which certain production targets have been met or the date upon which the parties mutually agree that commercial isobutanol production at the Redfield Facility will be commercially viable at the then-current production rate. At that time, (i) we will have the right to appoint a total of four members of Redfield’s 11-member board of managers, and (ii) the voting and economic interests of the Class G units will vest and, as a result, Gevo Development, as the sole holder of the Class G Units, will be entitled to a percentage of Redfield’s profits, losses and distributions, to be calculated based upon the demonstrated isobutanol production capabilities of the Redfield Facility.

The Joint Venture Agreement further provides that Gevo Development (or one of its affiliates) will be the exclusive marketer of all products produced by the Redfield Facility once commercial production of isobutanol at the Redfield Facility has begun. We have agreed to license the technology necessary to produce isobutanol at the Redfield Facility to Redfield, subject to the continuation of the marketing arrangement described above. In the event that the isobutanol production technology fails or Redfield is permanently prohibited from using such technology, we have agreed to forfeit the Class G Units and lose the value of our investment in Redfield.

Gevo, Inc. entered into a guaranty effective June 2011, pursuant to which it has unconditionally and irrevocably guaranteed the payment by Gevo Development of any and all amounts owed by Gevo Development pursuant to the terms and conditions of the Joint Venture Agreement and certain other agreements that Gevo Development and Redfield expect to enter into in connection with the Retrofit of the Redfield Facility.

As of December 31, 2014, we have incurred $0.4 million in project engineering and permitting process costs for the future Retrofit of the Redfield Facility, which have been recorded on our balance sheets in deposits and other assets. Based on estimates from our preliminary engineering process, we will need to raise additional debt or equity capital, which we may be unable to do on reasonable terms or at all, in order to complete the Retrofit of the Redfield Facility, however, we are not obligated to do so under the Joint Venture Documents.

Cargill, Incorporated

During February 2009, we entered into a license agreement with Cargill to obtain certain biological materials and license patent rights to use a yeast biocatalyst owned by Cargill. Under the agreement, Cargill has granted us an exclusive, royalty-bearing license, with limited rights to sublicense, to use the patent rights in a certain field, as defined in the agreement. The agreement contains five milestone payments totaling approximately $4.3 million that are payable by the Company after each milestone is completed.

During 2009, two milestones were completed and we recorded the related milestone amounts, along with an up-front signing fee, totaling $0.9 million, to research and development expense. During March 2010, we completed milestone number three and recorded the related milestone amount of $2.0 million to research and development expense at its then-current present value of $1.6 million because the milestone payment was paid over a period greater than 12 months from the date that it was incurred. At December 2012, we had not completed milestone number four. Accordingly, we paid a $0.5 million license fee which satisfied the terms of milestone number four under the agreement. This fee was paid in March 2013 through the issuance of 250,000 shares of our common stock to Cargill. Milestone number five included in the license agreement representing potential payments of up to $1.0 million, which is due by December 2015, has not been met as of December 31, 2014 and no amount has been recorded as a liability for this milestone. Upon commercialization of a product which uses Cargill's biological material or is otherwise covered by the patent rights under the license agreement, a royalty based on net sales is payable by us, subject to a minimum royalty amount per year, as defined in the agreement, and up to a maximum amount per year. We may terminate this agreement at any time upon 90 days' prior written notice. Unless terminated earlier, the agreement remains in effect until the later of December 31, 2025 and the date that no licensed patent rights remain.

Toray Industries, Inc.

In June 2011, we announced that we had successfully produced fully renewable and recyclable PET in cooperation with Toray Industries. Working directly with Toray Industries, we employed prototypes of commercial operations from the petrochemical and refining industries to make PX from isobutanol. Toray Industries used our bio-PX and commercially available renewable mono ethylene glycol to produce fully renewable PET films and fibers. In June 2012, we entered into a definitive agreement with Toray Industries, as amended in October 2013, for the joint development of an integrated supply chain for the production of bio-PET. Pursuant to the terms of the agreement with Toray Industries, we received $1.0 million which we used for the design and construction of a demonstration plant. In May 2014, we successfully shipped the requisite volumes of bio-PX associated with our contract with Toray Industries and, as a result, we recognized the $1.0 million, as well as revenue associated with the sale of the bio-PX, as a component of hydrocarbon revenue during the second quarter of 2014. At December 31, 2013, we included the $1.0 million as deferred revenue, a component of accounts payable and accrued liabilities on our consolidated balance sheets.

2017 Notes

In May 2014, we entered into the Loan Agreement, with a maturity date of March 15, 2017, pursuant to which the Lenders committed to provide one or more Term Loans to us in an aggregate amount of up to approximately $31.1 million on the terms and conditions set forth in the Loan Agreement. The First Advance of the Term Loan in the amount of $22.8 million, net of discounts and issue costs of $1.6 million and $1.5 million, respectively, was paid to us in May 2014. Also in May 2014, we entered into the Exchange and Purchase Agreement pursuant to which the Lenders were granted the right, subject to certain conditions, to exchange all or a portion of the outstanding principal amount of the Term Loan for our newly created 2017 Notes, which are convertible into shares of our common stock.

In June 2014, Lenders exchanged all $25.9 million of outstanding principal amount of Term Loan provided in the First Advance for 2017 Notes, together with accrued paid-in-kind interest of $0.2 million. The terms of the 2017 Notes are set forth in the 2017 Notes Indenture. The 2017 Notes have a maturity date of March 15, 2017 and a conversion price equal to $1.1584 per share or .8633 shares per $1 principal amount of 2017 Notes. The 2017 Notes do not contain any rights to anti-dilution adjustments for future equity issuances that are below the conversion price, and adjustments to the conversion price would be made only in the event that (i) there is a dividend or distribution paid on shares of our common stock or (ii) there is a subdivision, combination or reclassification of such common stock. Optional prepayment of the 2017 Notes is not permitted.

While outstanding, the aggregate amount of the Term Loan under the Loan Agreement bore interest at a rate equal to 15% per annum, of which 5% was payable in cash and 10% was payable in kind and capitalized and added to the principal amount of the Term Loan. The aggregate amount of the 2017 Notes outstanding bears interest at a rate equal to 10% per annum, which is payable, under certain circumstances, 5% in cash and 5% in kind and capitalized and added to the principal amount of the 2017 Notes (otherwise the full 10% is payable in cash). While the Term Loan and 2017 Notes are outstanding, we are required to maintain an interest reserve in an amount equal to 10% of the aggregate outstanding principal amount under each of the Term Loan and the 2017 Notes, (including any capitalized and uncapitalized interest that is paid in kind) to be adjusted on an annual basis.

The Loan Agreement includes customary affirmative and negative covenants and events of default, including, without limitation, disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain amounts of additional indebtedness, making investments, acquiring or merging with another entity, and making dividends and other restricted payments. The Term Loan is secured by a lien on substantially all of our assets and the assets of the Guarantor Subsidiaries and the obligations of Gevo are guaranteed by the Guarantor Subsidiaries. In May 2014, in connection with the Loan Agreement, Gevo, Inc. and the Guarantor Subsidiaries, entered into a Pledge and Security Agreement in favor of Whitebox. The collateral pledged includes substantially all the assets of Gevo, Inc. and the Guarantor Subsidiaries, including intellectual property. In May 2014, Agri-Energy also entered into a mortgage with respect to the real property located in Luverne, Minnesota. The 2017 Notes Indenture contains affirmative covenants, negative covenants and events of default that are generally consistent with the terms of the Loan Agreement described above and will be secured by a first priority lien on substantially all of the assets of the Company.

In connection with the transactions described above, we also entered into the Registration Rights Agreement, pursuant to which we filed a registration statement on Form S-3 registering the resale of 17,534,279 shares of our common stock underlying the 2017 Notes. We expect to file additional registration statements on Form S-3 or to amend filings in order to register additional shares of common stock for sale or resale, as necessary in connection with the 2017 Notes.

On July 31, 2014, the Company entered into amendments to the 2017 Notes Indenture to, among other things, permit the offering and issuance of warrants and the incurrence of indebtedness by the Company under such warrants.

On January 28, 2015, the Company entered into further amendments to the 2017 Notes Indenture to, among other things, permit the offering and issuance of additional warrants and the incurrence of indebtedness by the Company under such additional warrants.

On January 29, 2015, we commenced a conversion forbearance period in accordance with the terms of the 2017 Notes during which neither the Company nor any holder of the 2017 Notes has the right to convert any principal amount of the 2017 Notes into shares of Company common stock. The conversion forbearance period will terminate when the Company provides notice to the trustee for the 2017 Notes that it has a sufficient number of authorized and unissued shares of common stock to permit conversion of all of the outstanding 2017 Notes. If, on June 27, 2015, the conversion forbearance period has not been terminated and we have failed to reserve out of our authorized but unissued shares or treasury shares, sufficient shares of common stock to provide for the conversion of all of the outstanding 2017 Notes, an event of default under the terms of the 2017 Notes will be triggered. Upon such occurrence, 100% of the principal amount and all accrued and unpaid interest under the 2017 Notes will become immediately due and payable. Any default under the terms of the 2017 Notes could have a material adverse effect on our business, results of operations and financial condition.

2022 Notes

In July 2012, we sold $45.0 million in aggregate principal amount of 2022 Notes, with net proceeds of $40.9 million, after accounting for $2.7 million and $1.4 million of cash discounts and issue costs, respectively. The 2022 Notes bear interest at 7.5% which is to be paid semi-annually in arrears on January 1 and July 1 of each year commencing on January 1, 2013. The 2022 Notes will mature on July 1, 2022, unless earlier repurchased, redeemed or converted.

The 2022 Notes are convertible at an initial conversion rate of 175.6697 shares of Gevo, Inc. common stock per $1,000 principal amount of 2022 Notes, subject to adjustment in certain circumstances as described in the Indenture. This is equivalent to an initial conversion price of approximately $5.69 per share of common stock. Holders may convert the 2022 Notes at any time prior to the close of business on the third business day immediately preceding the maturity date of July 1, 2022.

If a holder elects to convert its 2022 Notes prior to July 1, 2017, such holder shall be entitled to receive, in addition to the consideration upon conversion, a Coupon Make-Whole Payment (as defined in the Indenture). The Coupon Make-Whole Payment is equal to the sum of the present values of the semi-annual interest payments that would have been payable on the 2022 Notes that a holder has elected to convert from the last day through which interest was paid up to but excluding July 1, 2017, computed using a discount rate of 2%. We may pay any Coupon Make-Whole Payment either in cash or in shares of common stock at our election. If we elect to pay in common stock, the stock will be valued at 90% of the average of the daily volume weighted average prices of our common stock for the ten trading days preceding the date of conversion. As of December 31, 2014, certain holders of our 2022 Notes have elected to convert bonds totaling $18.1 million, reducing the principal balance of the 2022 Notes to $26.9 million. Upon conversion, the 2022 Note holders received 3,179,608 shares of our common stock in payment of converted principal of $18.1 million and, pursuant to the terms of the Indenture, such holders also received 2,957,775 shares of our common stock in settlement of Coupon Make-Whole Payments of $4.9 million.

If a Make-Whole Fundamental Change (as defined in the Indenture) occurs and a holder elects to convert its 2022 Notes prior to July 1, 2017, the applicable conversion rate will increase based upon reference to the table set forth in Schedule A of the Indenture. In no event will the conversion rate increase to more than 202.0202 per $1,000 principal amount of 2022 Notes.

If a Fundamental Change (as defined in the Indenture) occurs, at any time, then each holder will have the right to require us to repurchase all of such holder’s 2022 Notes, or any portion thereof that is an integral multiple of $1,000 principal amount, for cash at a repurchase price of 100% of the principal amount of such 2022 Notes plus any accrued and unpaid interest thereon through, but excluding, the repurchase date. Additionally, on July 1, 2017, each holder will have the right to require us to repurchase all of such holder's 2022 Notes, or any portion thereof that is an integral multiple of $1,000 principal amount, for cash at a repurchase price of 100% of the principal amount of 2022 Notes plus any accrued and unpaid interest thereon through, but excluding, the repurchase date.

We have a provisional redemption right to redeem, at our option, all or any part of the 2022 Notes at a price payable in cash, beginning on July 1, 2015 and prior to July 1, 2017, provided that our common stock for 20 or more trading days in a period of 30 consecutive trading days ending on the trading day immediately prior to the date of the redemption notice exceeds 150% of the conversion price in effect on such trading day. On or after July 1, 2017, we have an optional redemption right to redeem, at our option, all or any part of the 2022 Notes at a price payable in cash. The price payable in cash for the Optional Redemption or Provisional Redemption is equal to 100% of the principal amount of 2022 Notes redeemed plus any accrued and unpaid interest thereon through, but excluding, the repurchase date.

If there is an Event of Default (as defined in the Indenture) under the 2022 Notes, the holders of not less than 25% in principal amount of Outstanding Notes (as defined in the Indenture) by notice to us and the trustee may, and the trustee at the request of such holders shall, declare the principal amount of all the Outstanding Notes and accrued and unpaid interest thereon to be due and payable immediately.

Secured Long-Term Debt

Gevo Loan Agreement. In August 2010,we entered into the Gevo Loan Agreement with TriplePoint, pursuant to which we borrowed $5.0 million. In July 2012, we used $5.4 million of the proceeds from the offering of the 2022 Notes to pay in full all amounts outstanding under the Gevo Loan Agreement, including an end-of-term payment equal to 8% of the amount borrowed.

Original Agri-Energy Loan Agreement. In August 2010, Gevo Development borrowed $12.5 million from TriplePoint to finance its acquisition of Agri-Energy. In September 2010, upon completion of the acquisition, the Original Agri-Energy Loan Agreement was amended to make Agri-Energy the borrower under the facility. In December 2013, we used $5.1 million of the proceeds from the offering of common stock units that was completed in December 2013 to pay off the remaining $5.1 million in outstanding principal under this loan.

Amended Agri-Energy Loan Agreement. In October 2011, the Original Agri-Energy Loan Agreement was amended and restated through the Amended Agri-Energy Loan Agreement to provide Agri-Energy with additional term loan facilities of up to $15.0 million to pay a portion of the costs, expenses, and other amounts associated with the Retrofit of the Agri-Energy Facility to produce isobutanol. The Amended Agri-Energy Loan Agreement includes customary affirmative and negative covenants and events of default. In October 2011, Agri-Energy borrowed $10.0 million under the additional term loan facilities, which prior to an amendment in May 2014, was set to mature in October 2015 and had an interest rate equal to 11%. In January 2012, Agri-Energy borrowed an additional $5.0 million under the additional term loan facilities which matures in December 2015, bringing the total borrowed under the additional term loan facilities to $15.0 million. At December 31, 2014, we were in compliance with the debt covenants under the Amended Agri-Energy Loan Agreement. As of December 31, 2014, Agri-Energy has granted TriplePoint a junior security interest in, and a lien upon, all of its assets as security for its obligations under the Amended Agri-Energy Loan Agreement. Gevo, Inc. has also guaranteed Agri-Energy's obligations under the Amended Agri-Energy Loan Agreement. As additional security, concurrently with the execution of the Amended Agri-Energy Loan Agreement, (i) Gevo Development entered into a limited recourse continuing guaranty in favor of TriplePoint, (ii) Gevo Development entered into an amended and restated limited recourse membership interest pledge agreement in favor of TriplePoint, pursuant to which it pledged the membership interests of Agri-Energy as collateral to secure the obligations under its guaranty and (iii) Gevo, Inc. entered into a the Gevo Security Agreement which secured its guarantee of Agri-Energy's obligations under the Amended Agri-Energy Loan Agreement. Under the terms of the Amended Agri-Energy Loan Agreement, subject to certain limited exceptions, Agri-Energy is only permitted to pay dividends if the following conditions are satisfied: (i) the Retrofit of the Agri-Energy Facility is complete and the facility is producing commercial volumes of isobutanol, (ii) its net worth is greater than or equal to $10.0 million, and (iii) no event of default has occurred and is continuing under the agreement.

As of December 31, 2014, we have made $33.5 million in principal payments due under the foregoing loan agreements with TriplePoint, including $5.4 million which was repaid upon the closing of the 2022 Notes in July 2012 and $5.1 million which was repaid upon the closing of the offering of common stock units in December 2013.

June 2012 Amendments. In June 2012, the Company entered into (i) the Security Agreement Amendment, which amended the Gevo Security Agreement and (ii) the Gevo Loan Amendment which amended the Gevo Loan Agreement. In addition, concurrently with the execution of the Security Agreement Amendment and the Gevo Loan Amendment, Agri-Energy entered into an amendment to the Amended Agri-Energy Loan Agreement. These amendments, among other things: (i) permitted the issuance of our 2022 Notes; (ii) removed the options of Agri-Energy and the Company to elect additional interest-only periods upon the achievement of certain milestones; (iii) permitted Agri-Energy to make dividend payments and distributions to the Company for certain defined purposes related to the 2022 Notes; (iv) added as an event of default the payment, repurchase or redemption of the 2022 Notes or of amounts payable in connection therewith, other than certain permitted payments related to the 2022 Notes; (v) added a negative covenant whereby the Company could not incur any indebtedness other than as permitted under the Security Agreement Amendment; and (vi) added a prohibition on making any Coupon Make-Whole Payments in cash prior to the payment in full of all remaining outstanding obligations under the Amended Agri-Energy Loan Agreement.

December 2013 Amendments. In December 2013, Gevo, Inc. entered into additional amendments to certain of its existing agreements with TriplePoint and entered into a new intellectual property assignment agreement in favor of TriplePoint to, among other things:

- permit the issuance of warrants associated with our December 2013 offering of common stock units;
- waive any prepayment premium (but not any end-of-term payment) with respect to the Original Agri-Energy Loan Agreement and the Amended Agri-Energy Loan Agreement;
- expand the events of default to add as an event of default the repurchase of the warrants;
- grant TriplePoint a lien and security interest in all of the intellectual property of the Company;
- re-price the three outstanding warrants to purchase common stock of the Company that are held by TriplePoint, which as of December 31, 2014, are exercisable in the aggregate for 388,411 shares of the Company's common stock, to reflect an exercise price equal to $1.18 per share;
- waive the requirement for Agri-Energy to make principal amortization payments on the Amended Agri-Energy Loan Agreement during the Restructure Period;
- raise the interest rates under the Amended Agri-Energy Loan Agreement to 13% during the Restructure Period (provided that such rate will return to 11% following the Restructure Period so long as no event of default under the Amended Agri-Energy Loan Agreement shall be continuing on the last day of the Restructure Period); and
- during the period beginning January 2015, and continuing through and including the final monthly installment due under the Amended Agri-Energy Loan Agreement, adjust the monthly payment due and payable to 50% of the fully amortizing amount of principal and interest otherwise due and payable for such month, applied first to outstanding accrued interest and then to principal, with the remaining 50% portion of such required payments of principal and interest for such month accruing and made due and payable at the time of the final monthly installment.

May 2014 Amendments. In May 2014, the Company entered into the 2014 Amendment, pursuant to which TriplePoint amended its agreements with the Company and consented to (i) the execution, delivery, and performance of the Senior Loan Documents; (ii) the incurrence of the Senior Indebtedness; (iii) the consummation of the exchange of the Term Loan for the 2017 Notes; (iv) the offering, issuance and sale of the 2017 Notes to Whitebox and the conversion of any 2017 Notes into the common stock of the Company pursuant to the terms of the 2017 Notes Indenture; (v) the guaranty of the Senior Indebtedness provided by the Guarantors; (vi) the liens granted by each of the Company and the Guarantors to secure the Senior Indebtedness and the other obligations under the Senior Loan Documents; (vii) the consummation of any transactions contemplated by, and the terms of, the Senior Loan Documents by the Company and the Guarantors; and (viii) the payment and performance of any of the obligations under the Senior Loan Documents by the Company and the Guarantors, including the making of dividends and distributions by the Guarantors to the Company for the purpose of enabling the Company to make any payments under the Senior Loan Documents. In connection with the 2014 Amendment, TriplePoint entered into a subordination agreement with Whitebox pursuant to which TriplePoint subordinated its right of payment and lien priority to the Senior Indebtedness on the terms set forth in the subordination agreement.

As part of the May 2014 Amendments, the Company repaid $9.6 million in principal payments due under the foregoing loan agreements with TriplePoint and entered into an amended loan agreement with TriplePoint. At such time, debt issuance costs were written off. At December 31, 2014, the amended loan agreement had a principal balance of $0.8 million, which amortizes over 36 months and bears interest at a rate equal to 9% per annum and matures in May 2017. There were no additional concessions or terms of the agreement which would require recognition of a gain or loss due to this amended agreement. As of December 31, 2014, Agri-Energy has granted TriplePoint a junior security interest in all of its assets as security for its obligations under the Amended Agri-Energy Loan Agreement.

On July 31, 2014, the Company entered into amendments to the Amended Agri-Energy Loan Agreement and the Gevo Security Agreement to, among other things, permit the offering and issuance of warrants and the incurrence of indebtedness by the Company under such warrants.

On January 28, 2015, the Company entered into further amendments to the Amended Agri-Energy Loan Agreement and the Gevo Security Agreement to, among other things, permit the offering and issuance of additional warrants and the incurrence of indebtedness by the Company under such additional warrants.

Contractual Obligations and Commitments

The following summarizes the future commitments arising from our contractual obligations at December 31, 2014 (in thousands).

	Less than 1 year	1 - 3 years	4 - 5 years	5+ Years	Total
Principal debt payments (1)	$319	$26,611	$-	$26,900	$53,830
Interest payments on debt (2)	4,690	7,218	4,035	6,053	21,996
Operating leases (3)	1,566	2,352	1,573	-	5,491
Software license agreement (4)	157	329	-	-	486
Base fee due to South Hampton Resources, Inc. (5)	260	-	-	-	260
Total	$6,992	$36,510	$5,608	$32,953	$82,063

(1) Principal debt payments include amounts due to TriplePoint under the Amended Agri-Energy Loan Agreement and the principal amount of the outstanding Convertible Notes.
(2) Interest payments due to TriplePoint under the Amended Agri-Energy Loan Agreement and to holders of the Convertible Notes.
(3) Commitments for operating leases primarily relate to our leased facility in Englewood, Colorado and our lease for rail cars for ethanol and isobutanol shipments.
(4) Amounts due under a software license agreement.
(5) In accordance with our demonstration plant processing agreement with South Hampton we are obligated to pay $52,000 per month for the remainder of the initial term of the agreement which ends in August 2015.

The table above reflects only payment obligations that are fixed and determinable. The above amounts exclude potential payments to be made under our license and other agreements that are based on the achievement of future milestones or royalties on product sales.

Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any relationships with unconsolidated entities, such as entities often referred to as structured finance or special purpose entities, established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Recent Accounting Pronouncements

See Note 2 in Item 8. Financial Statements and Supplemental Data, of this Report, for a discussion of recent accounting pronouncements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Commodity Price Risk

We have produced isobutanol, ethanol and distiller's grains from corn and our business is sensitive to changes in the price of corn. The price of corn is subject to fluctuations due to unpredictable factors such as weather, corn planted and harvested acreage, changes in national and global supply and demand and government programs and policies. We use natural gas during the production of isobutanol and ethanol and, as a result, our business is also sensitive to changes in the price of natural gas. The price of natural gas is influenced by such weather factors as extreme heat or cold in the summer and winter, or other natural events like hurricanes in the spring, summer and fall. Other natural gas price factors include North American exploration and production, and the amount of natural gas in underground storage during both the injection and withdrawal seasons. Ethanol, isobutanol and hydrocarbon prices are sensitive to world crude oil supply and demand, crude oil refining capacity and utilization, government regulation and consumer demand for alternative fuels. Distiller's grains prices are sensitive to various demand factors such as numbers of livestock on feed, prices for feed alternatives and supply factors, primarily production by ethanol plants and other sources.

Historically, we have attempted to reduce the market risk associated with fluctuations in the price of corn by employing a variety of risk management and economic hedging strategies. Strategies include the use of forward purchase contracts and exchange-traded futures contracts. Exchange-traded futures contracts for corn are recorded as a derivative asset or liability on our consolidated balance sheets at fair value. Changes in the fair value during a reporting period are recognized as cost of goods sold in our consolidated statements of operations.

Equity Price Risk

2022 Notes. As of December 31, 2014, we had $26.9 million in principal amount of 2022 Notes due July 1, 2022. We are subject to equity price risk related to the Coupon Make-Whole Payment feature of this debt. If a holder elects to convert its 2022 Notes prior to July 1, 2017, such holder shall be entitled to receive, in addition to the consideration upon conversion, a Coupon Make-Whole Payment. The Coupon Make-Whole Payment is equal to the sum of the present values of the number of semi-annual interest payments that would have been payable on the 2022 Notes that a holder has elected to convert from the last day through which interest was paid up to but excluding July 1, 2017, computed using a discount rate of 2%. We may pay any Coupon Make-Whole Payment either in cash or in shares of common stock at our election. If we elect to pay in common stock, the stock will be valued at 90% of the average of the daily volume weighted average prices of our common stock for the 10 trading days preceding the date of conversion. Accordingly, based upon the number of semi-annual interest payments currently due upon a conversion, at a $0.3369 daily volume weighted average common stock price (the daily volume weighted average prices of our common stock for the 10 trading days up to and including December 31, 2014), if we elected to settle the Coupon Make-Whole Payment components of all conversions, we would be required to issue 12,981,633 shares to settle the Coupon Make-Whole Payment upon conversion of the principal amount of 2022 Notes outstanding as of December 31, 2014.

The 2022 Notes include terms that are considered to be embedded derivatives, including the Coupon Make-Whole Payment (see Note 6). On a quarterly basis, we are required to record these embedded derivatives at fair value with the changes being recorded as a component of our consolidated statements of operations. Accordingly, our results of operations are subject to exposure associated with increases or decreases in the estimated fair value of our embedded derivatives.

2017 Notes. As of December 31, 2014, we had $26.1 million in principal amount of 2017 Notes due March 15, 2017. We are subject to equity price risk related to the following as described in the 2017 Notes Indenture. The make-whole provision of the 2017 Notes has no equity price risk since the conversion price is fixed as 1.1584. If the Company's common stock trades above $1.10, the interest is payable 5% in cash and 5% in kind and capitalized and added to the principal amount of the 2017 Notes (otherwise the full 10% is payable in cash). Changes to the equity price impacts the fair value accounting treatment of the 2017 notes, as described in Note 18 in Item 8. Financial Statements and Supplemental Data, of this Report.

Warrants. As of December 31, 2014, we had 21,303,750 and 30,000,000 outstanding 2013 Warrants and 2014 Warrants (together, the "Warrants"), respectively, that are derivative instruments and are recorded at an estimated fair value each reporting period. The change in the estimated fair value, which is determined in part based upon the quoted market prices of the Warrants, represents an unrealized gain or loss included in our consolidated statement of operations. Accordingly, our results of operations are subject to exposure associated with increases or decreases in the estimated fair value of the Warrants. An increase or decrease of $0.01 in the estimated fair value of each Warrant would result in a $0.2 million unrealized loss or gain, respectively, on our consolidated statements of operations.

Refer to "Critical Accounting Policies and Estimates" included in this Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" for an additional discussion on the impact on our results of operations associated with the embedded derivatives and derivative instruments described above.

Interest Rate Risk

We had cash and cash equivalents totaling $6.4 million at December 31, 2014. These amounts were invested primarily in demand deposit checking and savings accounts and are held for working capital purposes. The primary objective of our investment activities is to preserve our capital for the purpose of funding our operations and we do not enter into investments for trading or speculative purposes. Accordingly, we believe we do not have material exposure to changes in fair value as a result of changes in interest rates.

The terms of our TriplePoint secured debt, 2017 Notes and 2022 Notes provide for fixed rates of interest, and are therefore not subject to fluctuations in market interest rates.

The valuations of the 2017 Notes and embedded derivatives of the 2022 Notes both use the risk-free interest rate as an input, so the valuations are subject to interest rate risk. An increase or decrease of 1% in the risk free interest rate would result in a $0.4 million unrealized loss or gain, respectively, on our consolidated statements of operations

Item 8. Financial Statements and Supplementary Data

Index to Gevo, Inc. Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of

Gevo, Inc.

Englewood, CO

We have audited the accompanying consolidated balance sheets of Gevo, Inc. and subsidiaries (the “Company”) as of December 31, 2014 and 2013, and the related consolidated statements of operations, stockholders’ equity, and cash flows for each of the three years in the period ended December 31, 2014,. These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Gevo, Inc. and subsidiaries as of December 31, 2014 and 2013, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2014, in conformity with accounting principles generally accepted in the United States of America.

The Company is engaged in conducting research and development, business development, business and financial planning, establishing its facilities, and raising capital. As discussed in Note 1 to the consolidated financial statements, attainment of profitable operations are dependent upon future events, including completion of its development activities resulting in sales of isobutanol or isobutanol-derived products and/or technology, obtaining adequate financing to complete its development activities, obtaining adequate financing to acquire access to and complete the retrofit of ethanol plants to isobutanol production, gaining market acceptance and demand for its products and services and attracting and retaining qualified personnel.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the amount of existing working capital at December 31, 2014 was not sufficient to meet the cash requirements to fund planned operations through December 31, 2015 without additional sources of cash, which raises substantial doubt about the Company’s ability to continue as a going concern. Management's plans concerning these matters are also described in Note 1 to the consolidated financial statements. As described in Note 8 to the consolidated financial statements, these matters may also potentially affect the Company’s rights and obligations under certain of its debt agreements. The consolidated financial statements do not include any adjustments that might result from the outcome of these uncertainties.

/s/ DELOITTE & TOUCHE LLP

Denver, Colorado

March 30, 2015

GEVO, INC.

CONSOLIDATED BALANCE SHEETS

(In thousands, except share and per share amounts)

	December 31, 2014	December 31, 2013
Assets		
Current assets:		
Cash and cash equivalents	$6,359	$24,625
Accounts receivable	2,361	1,358
Inventories	4,292	3,581
Prepaid expenses and other current assets	732	1,163
Total current assets	13,744	30,727
Property, plant and equipment, net	81,240	83,475
Debt issue costs, net	530	801
Restricted deposits	2,611	-
Deposits and other assets	803	1,352
Total assets	$98,928	$116,355
Liabilities		
Current liabilities:		
Accounts payable and accrued liabilities	$8,588	$13,030
Current portion of secured debt, net of $31 and $492 discount at December 31, 2014 and 2013, respectively	288	788
Derivative warrant liability	3,114	7,243
Other current liabilities	35	-
Total current liabilities	12,025	21,061
Long-term portion of secured debt, net of $18 and $450 discount at December 31, 2014 and 2013, respectively	485	9,339
2017 notes recorded at fair value	25,460	-
2022 notes, net of $13,221 and $15,869 discount at December 31, 2014 and 2013, respectively	13,679	14,501
Other long-term liabilities	315	479
Total liabilities	51,964	45,380
Commitments and Contingencies		
Stockholders' Equity		
Preferred stock, $0.01 par value per share; 10,000,000 shares authorized; none issued and outstanding at December 31, 2014 and 2013	-	-
Common stock, $0.01 par value per share; 250,000,000 authorized; 99,628,054 and 68,492,894 shares issued and outstanding at December 31, 2014 and 2013, respectively	996	685
Additional paid-in capital	349,266	332,443
Deficit accumulated	(303,298)	(262,153)

Total stockholders' equity	46,964	70,975
Total liabilities and stockholders' equity	$98,928	$116,355

The accompanying Notes are an integral part of these Consolidated Financial Statements.

GEVO, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except share and per share amounts)

	Year Ended December 31, 2014	2013	2012
Revenue and cost of goods sold			
Ethanol sales and related products, net	$23,549	$-	$19,908
Hydrocarbon revenue	3,949	2,157	650
Grant and other revenue	768	2,722	2,818
Corn sales	-	3,345	1,009
Total revenues	28,266	8,224	24,385
Cost of corn sales	-	3,391	918
Cost of goods sold	35,582	14,522	31,492
Gross loss	(7,316)	(9,689)	(8,025)
Operating expenses			
Research and development	14,120	20,179	19,431
Selling, general and administrative	18,341	25,548	43,981
Other operating expenses	-	99	-
Total operating expenses	32,461	45,826	63,412
Loss from operations	(39,777)	(55,515)	(71,437)
Other (expense) income			
Interest expense	(8,255)	(9,301)	(6,338)
Interest expense - debt issuance costs	(3,769)	-	-
Loss on conversion of debt	-	(2,038)	-
Gain from change in fair value of embedded derivative of the 2022 Notes	3,470	3,114	17,000
Gain (loss) from change in fair value of derivative warrant liability	6,530	(3,195)	-
Gain from change in fair value of 2017 Notes	648	-	-
Other income	8	129	63
Total other expense	(1,368)	(11,291)	10,725
Net loss	$(41,145)	$(66,806)	$(60,712)
Net loss per common share - basic and diluted	$(0.51)	$(1.48)	$(1.86)
Weighted-average number of common shares outstanding - basic and diluted	80,492,432	45,071,618	32,619,091

The accompanying Notes are an integral part of these Consolidated Financial Statements.

GEVO, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

(In thousands, except share amounts)

	Convertible Preferred Stock		Common Stock		Additional Paid-In	Deficit	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Accumulated	Equity
BALANCE—December 31, 2011	-	$ -	26,382,058	$ 264	$ 226,508	$ (134,635)	$ 92,137
Issuance of common stock, net	-	-	12,500,000	125	57,305	-	57,430
Issuance of common stock upon exercise of stock options, warrants and pursuant to an employee stock purchase plan	-	-	654,047	7	870	-	877
Issuance of restricted stock	-	-	232,732	2	(2)	-	-
Issuance of warrants in conjunction with secured debt	-	-	-	-	120	-	120
Cancellation of restricted stock	-	-	(162,169)	(2)	2	-	-
Non-cash stock-based compensation	-	-	-	-	7,979	-	7,979
Net loss	-	-	-	-	-	(60,712)	(60,712)
BALANCE—December 31, 2012	-	-	39,606,668	396	292,782	(195,347)	97,831
Issuance of restricted stock	-	-	1,170,775	12	(12)	-	-
Cancellation of restricted stock	-	-	(237,795)	(2)	2	-	-
Issuance of common stock for services, upon exercise of stock options and pursuant to an employee stock purchase plan	-	-	512,113	5	740	-	745
Non-cash stock-based compensation	-	-	-	-	3,911	-	3,911
Issuance of common stock, net of issue costs and warrants	-	-	21,303,750	213	22,118	-	22,331
Modification of warrants	-	-	-	-	179	-	179
Issuance of common stock upon conversion of debt	-	-	6,137,383	61	12,723	-	12,784
Net loss	-	-	-	-	-	(66,806)	(66,806)
BALANCE—December 31, 2013	-	-	68,492,894	685	332,443	(262,153)	70,975
Issuance of restricted stock	-	-	1,138,081	11	(11)	-	-
Issuance of common stock, net of issue costs and warrants	-	-	30,000,000	300	13,923	-	14,223
Cancellation of restricted stock	-	-	(66,042)	(1)	1	-	-
Issuance of common stock for services, upon exercise of stock options and pursuant to an employee stock purchase plan	-	-	63,121	1	50	-	51

Non-cash stock-based compensation	-	-	-	-	2,860	-	2,860
Net loss	-	-	-	-		(41,145)	(41,145)
BALANCE—December 31, 2014	-	$ -	99,628,054	$ 996	$ 349,266	$ (303,298)	$ 46,964

The accompanying Notes are an integral part of these Consolidated Financial Statements.

GEVO, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Year Ended December 31,		
	2014	2013	2012
Operating Activities			
Net loss	$(41,145)	$(66,806)	$(60,712)
Adjustments to reconcile net loss to net cash used in operating activities:			
(Gain) loss from change in fair value of derivative warrant liability	(6,530)	3,195	-
Gain from change in fair value of embedded derivative of the 2022 Notes	(3,470)	(3,114)	(17,000)
Gain from change in fair value of 2017 Notes	(648)	-	-
Non-cash stock-based compensation	2,860	3,911	7,979
Depreciation and amortization	4,880	3,393	3,313
Non-cash interest expense	7,860	4,719	2,207
Loss on conversion of debt	-	2,038	-
Loss (gain) from change in fair value of derivatives	-	259	(445)
Other non-cash expenses	66	991	500
Changes in operating assets and liabilities:			
Accounts receivable	(1,003)	(660)	2,240
Inventories	(711)	2,148	(2,845)
Prepaid expenses and other current assets	431	345	197
Deposits and other assets	-	(48)	(149)
Accounts payable, accrued expenses, and long-term liabilities	(1,580)	2,581	(3,343)
Net cash used in operating activities	(38,990)	(47,048)	(68,058)
Investing Activities			
Acquisitions of property, plant and equipment	(4,894)	(9,806)	(52,432)
Restricted deposits	(2,611)	-	40
Proceeds from sales tax refund	-	2,006	-
Other	-	125	(647)
Net cash used in investing activities	(7,505)	(7,675)	(53,039)

The accompanying Notes are an integral part of these Consolidated Financial Statements.

GEVO, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS—(Continued)

(In thousands)

	Year Ended December 31,		
	2014	2013	2012
Financing Activities			
Payments on secured debt	(9,824)	(14,529)	(10,406)
Debt and equity offering costs	(5,873)	(1,711)	(5,876)
Proceeds from issuance of common stock upon exercise of stock options and employee stock purchase plan	19	262	877
Proceeds from issuance of common stock and common stock warrants	18,000	28,761	61,875
Proceeds from issuance of 2017 Notes	25,907	-	-
Proceeds from issuance of convertible debt, net	-	-	42,300
Proceeds from issuance of secured debt	-	-	5,000
Deposit on secured debt and other	-	(179)	(154)
Net cash provided by financing activities	28,229	12,604	93,616
Net (decrease) in cash and cash equivalents	(18,266)	(42,119)	(27,481)
Cash and cash equivalents			
Beginning of year	24,625	66,744	94,225
Ending of year	$6,359	$24,625	$66,744

The accompanying Notes are an integral part of these Consolidated Financial Statements.

GEVO, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS—(Continued)

(In thousands)

Supplemental disclosures of cash and non-cash investing and financing transactions	Year Ended December 31, 2014	2013	2012
Conversion of convertible debt to common stock	$-	$12,784	$-
Cash paid for interest, net of interest capitalized	$4,213	$4,463	$4,307
Interest Expense Capitalized into 2017 Notes	$201	$-	$-
Non-cash purchase of property, plant and equipment	$108	$2,453	$390
Accrued offering costs	$-	$671	$-
Issuance of common stock for services	$31	$483	$-
Issuance of common stock warrants	$2,400	$4,048	$-
Modification of warrants	$-	$179	$-
Warrants issued with secured debt	$-	$-	$120

The accompanying Notes are an integral part of these Consolidated Financial Statements.

GEVO, INC.

Notes to Consolidated Financial Statements

1. Nature of Business and Financial Condition

Nature of Business. Gevo, Inc. (“Gevo” or the “Company,” which, unless otherwise indicated, refers to Gevo, Inc. and its subsidiaries) is a renewable chemicals and next generation biofuels company focused on the development and commercialization of alternatives to petroleum-based products based on isobutanol produced from renewable feedstocks. Gevo, Inc. was incorporated in Delaware on June 9, 2005. Gevo, Inc. formed Gevo Development, LLC (“Gevo Development”) in September 2009 to finance and develop biorefineries through joint venture, licensing arrangements, tolling arrangements or direct acquisition (see Note 13 for more information on Gevo Development). Gevo Development became a wholly-owned subsidiary of the Company in September 2010. Gevo Development purchased Agri-Energy, LLC (“Agri-Energy”) in September 2010. Through May 2012, Agri-Energy, a wholly-owned subsidiary of Gevo Development, was engaged in the business of producing and selling ethanol and related products produced at its plant located in Luverne, Minnesota (the “Agri-Energy Facility”). The Company commenced the retrofit of the Agri-Energy Facility in 2011 and commenced initial startup operations for the production of isobutanol at this facility in May 2012. In September 2012, the Company made the strategic decision to pause isobutanol production at the Agri-Energy Facility to focus on optimizing specific parts of the process to further enhance isobutanol production rates. In 2013, the Company modified the Agri-Energy Facility in order to increase the isobutanol production rate. In June 2013, the Company resumed the limited production of isobutanol, operating one fermenter and one Gevo Integrated Fermentation Technology® (“GIFT®”) separation system in order to (i) verify that the modifications had significantly reduced the previously identified infections, (ii) demonstrate that its biocatalyst performs in the one million liter fermenters at the Agri-Energy Facility, and (iii) confirm GIFT® efficacy at commercial scale at the Agri-Energy Facility. In August 2013, the Company expanded production capacity at the Agri-Energy Facility by adding a second fermenter and second GIFT® system to further verify its results with a second configuration of equipment. In October 2013, the Company began commissioning the Agri-Energy Facility on corn mash to test isobutanol production run rates and to optimize biocatalyst production, fermentation separation and water management systems. In March 2014, the Company decided to leverage the flexibility of its GIFT® technology and make further modifications the Agri-Energy Facility which it believed would enable the simultaneous production of isobutanol and ethanol. In July 2014, the Company began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. In line with the Company’s strategy to maximize asset utilization and site cash flows, the Company believes that this configuration of the plant should allow it to continue to optimize its isobutanol technology at a commercial scale, while taking advantage of potentially superior ethanol contribution margins.

As of December 31, 2014, the Company continues to engage in research and development, business development, business and financial planning, and to optimize operations for isobutanol and ethanol production at the Agri-Energy Facility and raise capital. Ultimately, the Company believes that the attainment of profitable operations is dependent upon future events, including (i) completing its development activities resulting in commercial production and sales of isobutanol or isobutanol-derived products and/or technology, (ii) obtaining adequate financing to complete its development activities, (iii) obtaining adequate financing to build out further isobutanol production capacity, (iv) gaining market acceptance and demand for its products and services, and attracting and (v) retaining qualified personnel.

The Company has primarily derived revenue from the sale of ethanol, distiller’s grains and other related products produced as part of the ethanol production process at the Agri-Energy Facility. The production of ethanol alone is not the Company's intended business and its future strategy is expected to depend on its ability to produce and market isobutanol and products derived from isobutanol. Given that the production of ethanol alone is not the Company's intended business, and the Company is only beginning to achieve more consistent production and revenue from the sale of isobutanol, the historical operating results of Agri-Energy may not be indicative of future operating results for Agri-Energy or Gevo.

Financial Condition. For the year ended December 31, 2014, the Company incurred a consolidated net loss of $41.1 million and had an accumulated deficit of $303.3 million. The Company's cash and cash equivalents at December 31, 2014 totaled $6.4 million which is primarily being used for the following: (i) operating activities and completion of the side-by-side configuration of the Agri-Energy Facility; ii) operating activities at its corporate headquarters in Colorado, including research and development work; (iii) capital improvements primarily associated with its Agri-Energy Facility; (iv) costs associated with optimizing isobutanol production technology; (v) costs associated with the ongoing litigation with Butamax Advanced Biofuels LLC ("Butamax"), a joint venture vetween BP p.l.c. ("BP") and E. I. du Pont de Nemours and Company ("DuPont"); and (vi) debt service obligations. The Company expects to incur future net losses as it continues to fund the development and commercialization of its product candidates. The Company's transition to profitability is dependent upon, among other things, the successful development and commercialization of its product candidates and the achievement of a level of revenues adequate to support the Company's cost structure. The Company may never achieve profitability or positive cash flows, and unless and until it does, the Company will continue to need to raise additional cash. Management intends to fund future operations through additional private and/or public offerings of debt or equity securities. In addition, the Company may seek additional capital through arrangements with strategic partners or from other sources, it may seek to restructure its secured debt and it will continue to address its cost structure.

GEVO, INC.

Notes to Consolidated Financial Statements (Continued)

Notwithstanding, there can be no assurance that the Company will be able to raise additional funds, or achieve or sustain profitability or positive cash flows from operations. Based on the Company's operating plan, existing working capital at December 31, 2014 was not sufficient to meet the cash requirements to fund planned operations through December 31, 2015 without additional sources of cash. These conditions raise substantial doubt about the Company's ability to continue as a going concern at December 31, 2014. The Company's inability to continue as a going concern may potentially affect the Company's rights and obligations under its Senior Secured Debt, Secured Debt and Convertible Notes. The accompanying financial statements have been prepared assuming that the Company will continue as a going concern and do not include adjustments that might result from the outcome of this uncertainty. This basis of accounting contemplates the recovery of the Company's assets and the satisfaction of liabilities in the normal course of business. See Note 8 for information on the Company's debt obligations and see Note 20 for information on the Company's issuance of common stock units subsequent to December 31, 2014.

Despite the Company's continued success in meeting isobutanol fermentation targets, producing isobutanol and ethanol simultaneously, and its progress toward achieving breakeven earnings before interest, taxes, depreciation and amortization (EBITDA) at the Agri-Energy Facility, the Company continues to face significant expenses related to its ongoing litigation with Butamax. While the U.S. Supreme Court recently ruled in the Company's favor and overturned an earlier Federal Circuit Court of Appeals ruling on the interpretation of key claims related to certain patents, trials related to other patents were recently scheduled for August 2015 and April 2016 and the Company expects to incur significant costs preparing for and participating in these upcoming trials. The Company continues to believe that the Butamax complaints are without merit. However, if it is unable to raise the significant funds that will be required for it to continue to defend intellectual property rights, the Company could be forced to change its business strategy which may include one or more of the following: (i) terminating the research and development, manufacture, sale and use of products that include the subject intellectual property; (ii) conducting research and development and manufacturing any products that include the subject intellectual property outside of the U.S.; (iii) shifting its focus to the production of ethanol and/or the development of hydrocarbon products, including those that can be produced from ethanol; or (iv) pursuing strategic alternatives, including the monetization of some or all of the Company's assets, in order to maximize stockholder value.

2. Summary of Significant Accounting Policies

Principles of Consolidation. The consolidated financial statements of Gevo include the accounts of its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates. The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America ("GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates.

Concentrations of Credit Risk. The Company's financial instruments that are exposed to concentrations of credit risk consist of cash and cash equivalents in excess of the federally insured limits. The Company's cash and cash equivalents are deposited with high credit quality financial institutions and are primarily in demand deposit accounts.

Cash and Cash Equivalents. The Company maintains its cash and cash equivalents in highly liquid interest bearing money market accounts or non-interest bearing checking accounts. The Company considers all highly liquid investments purchased with a remaining maturity of three months or less at the date of acquisition to be cash equivalents.

Accounts Receivable. The Company records receivables for products shipped and services provided but for which payment has not yet been received. As of December 31, 2014 and 2013, no allowance for doubtful accounts has been recorded, based upon the expected full collection of the accounts receivable.

Inventories. Inventory is recorded at the lower of cost or market value and cost of goods sold is determined by the first-in, first-out method. Ethanol and isobutanol inventory cost consists of the applicable share of raw material, direct labor and manufacturing overhead costs.

Restricted Deposits. The Company maintains a restricted deposit related to the 2017 Notes (defined below) that is equivalent to ten percent of the principal balance.

Derivative Instruments. The Company evaluates its contracts for potential derivatives. See Note 6 for a description of the Company's accounting for embedded derivatives and Note 7 for a description of the Company's derivative warrant liability.

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Notes to Consolidated Financial Statements (Continued)

Since the acquisition of Agri-Energy in September 2010, the Company's activities expose it to a variety of market risks, including the effects of changes in commodity prices for corn. These financial exposures are monitored and have been managed by the Company generally through derivative instruments, including forward purchase contracts and exchange traded futures contracts, as an integral part of its overall risk management program. The Company's risk management program focuses on the unpredictability of financial and commodities markets and seeks to reduce the potentially adverse effects that the volatility of these markets may have on its operating results.

Historically, the Company has followed a policy of using exchange-traded futures contracts as a means of managing exposure to changes in corn prices. Exchange-traded futures contracts, if any, are valued at fair value and are recorded as a derivative asset or liability in the consolidated balance sheets and changes in fair value are recorded in cost of goods sold in the consolidated statements of operations. As of December 31, 2014 and 2013, the Company did not have any exchange-traded futures contracts.

Forward purchase contracts are recorded at fair value unless a company elects to use the "normal purchases and normal sales scope exception" guidance of GAAP. To qualify for the normal purchases and normal sales scope exception, a contract must be appropriately designated and must provide for the purchase or sale of physical commodities in quantities that are expected to be used or sold over a reasonable period of time in the normal course of operations. During the years ended December 31, 2014 and 2013, the Company did not have any forward purchase contracts; therefore, election of the normal purchase and normal sales scope exception was not applicable. While the forward purchase contracts were not material at December 31, 2012, they were recorded at their fair value. Changes in the fair value of forward purchase contracts are recorded in cost of goods sold in the consolidated statements of operations.

The foregoing derivatives do not include any credit risk related contingent features, the Company has not entered into these derivative financial instruments for trading or speculative purposes, and the Company has not designated any of its derivatives as hedges for financial accounting purposes. At December 31, 2014 and 2013, the Company did not have any exchange-traded futures contracts or forward purchase contracts and, as such, did not hold any cash in margin deposit accounts.

The Company records realized and unrealized gains or losses on its derivative instruments as a component of cost of goods sold in the consolidated statements of operations.

The following table summarizes the realized and unrealized gains/ (losses) of the Company's derivative instruments (in thousands).

	Year Ended December 31,		
	2014	2013	2012
Realized Gain / (Losses)			
Exchange-traded futures contracts	$-	$642	$(375)
Unrealized Gain / (Losses)			
Exchange-traded futures contracts	-	(271)	457

Forward purchase contracts	-	12	(12)

Property, Plant and Equipment. Property, plant and equipment are recorded at cost less accumulated depreciation and amortization. Depreciation and amortization are computed using the straight-line method over the assets' estimated useful lives. Leasehold improvements are amortized over the term of the lease agreement or the service lives of the improvements, whichever is shorter. Assets under construction are depreciated when they are placed into service. Maintenance and repairs are charged to expense as incurred and expenditures for major improvements are capitalized.

The Company capitalizes interest incurred for capital projects at its Agri-Energy Facility during the period of construction through the date such projects become substantially complete. As of December 31, 2014, the Company had capitalized interest of $1.8 million.

Impairment of Property, Plant and Equipment. The Company's property, plant and equipment consist primarily of assets associated with the acquisition and retrofit of the Agri-Energy Facility. The Company assesses impairment of property, plant and equipment for recoverability when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances which could trigger a review include, but are not limited to: significant decreases in the market price of the asset; significant adverse changes in the business climate, or legal or regulatory factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; or expectations that the asset will more likely than not be

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Notes to Consolidated Financial Statements (Continued)

sold or disposed of significantly before the end of its estimated useful life. The carrying amount of a long-lived asset is considered to be impaired if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the assets.

The Company evaluated its Agri-Energy Facility for impairment as of December 31, 2014 and 2013. These evaluations included comparing the carrying amount of the acquisition and retrofit of the Agri-Energy Facility to the estimated undiscounted future cash flows at the Agri-Energy Facility as this represents the lowest level of identifiable cash flows. Significant assumptions included in the estimated undiscounted future cash flows include, among others, estimates of the:

- sales price of isobutanol and by-products such as dried distiller's grains;
- purchase price of corn;
- production levels of isobutanol;
- capital and operating costs to produce isobutanol; and
- estimated useful life of the primary asset.

Factors which can impact these assumptions include, but are not limited to;

- effectiveness of the Company's technology to produce isobutanol at targeted margins;
- demand for isobutanol and oil prices; and
- harvest levels of corn.

Based upon the Company's evaluation at December 31, 2014 and 2013, the Company concluded that the estimated undiscounted future cash flows from the Agri-Energy Facility exceeded the carrying value and, as such, these assets were not impaired. Although the Company's cash flow forecasts are based on assumptions that are consistent with its planned use of the assets, these estimates required significant exercise of judgment and are subject to change in future reporting periods as facts and circumstances change. Additionally, the Company may make changes to its business plan that could result in changes to the expected cash flows. As a result, it is possible that a long- lived asset may be impaired in future reporting periods.

Debt at Fair Value Option. The Company has elected the fair value option for certain long-term debt instruments that qualify for such treatment. See Note 8 for a detailed description of the accounting for the 2017 convertible notes that are accounted for in such manner.

Debt Issue Costs. Debt issue costs are costs incurred in connection with the Company's debt financings that primarily have been capitalized and are being amortized over the stated maturity period or estimated life of the related debt, using the effective interest method. Debt issue costs for the 2017 convertible notes are expensed in accordance with the Company's election of the fair value option for such notes.

Revenue Recognition. The Company records revenue from the sale of hydrocarbon products, ethanol and related products, including the sale of corn inventory. The Company recognizes revenue when all of the following criteria are satisfied: persuasive evidence of an arrangement exists; risk of loss and title transfer to the customer; the price is fixed or determinable; and collectability is reasonably assured. Ethanol and related products are generally shipped free on board shipping point. Collectability of revenue is reasonably assured based on historical evidence of collectability between the Company and its customers. In accordance with the Company's agreements for the marketing and sale of ethanol and related products, commissions due to marketers were deducted from the gross sales price at the time payment was remitted. Ethanol and related products sales were recorded net of commissions.

Revenue related to government research grants and cooperative agreements is recognized in the period during which the related costs are incurred, provided that the conditions under the awards have been met and only perfunctory obligations are outstanding.

Cost of Goods Sold. Cost of goods sold includes costs incurred in conjunction with the initial startup operations for the production of isobutanol at the Agri-Energy Facility and costs directly associated with the ethanol production process such as costs for direct materials, direct labor and certain plant overhead costs. Costs associated with the initial operations for the production of isobutanol includes costs for direct materials, direct labor, plant utilities, including natural gas, and plant depreciation. Direct materials consist of dextrose for initial production of isobutanol, corn feedstock, denaturant and process chemicals. Direct labor includes compensation of personnel directly involved in production operations at the Agri-Energy Facility. Costs of direct materials for the production of ethanol consist of corn feedstock, denaturant and process chemicals. Direct labor includes compensation of personnel directly involved in the operation of the Agri-Energy Facility. Plant overhead costs primarily consist of plant utilities and plant

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Notes to Consolidated Financial Statements (Continued)

depreciation. Cost of goods sold is mainly affected by the cost of corn and natural gas. Corn is the most significant raw material cost. The Company purchases natural gas to power steam generation in the production process and to dry the distiller's grains. The Company historically has entered into forward purchase contracts and exchange-traded futures contracts associated with corn. Accordingly, the Company's cost of goods sold also includes gains or losses and/or changes in fair value from its forward purchase contracts and exchange-traded futures contracts. As of December 31, 2014 and 2013, the Company did not have any forward purchase contracts or exchange-traded futures contracts.

Patents . All costs related to filing and pursuing patent applications are expensed as incurred as recoverability of such expenditures is uncertain. Patent-related legal expenses incurred are recorded as selling, general and administrative expense, and during the years ended December 31, 2014, 2013 and 2012 were $0.9 million, $2.3 million and $2.7 million, respectively.

Research and Development. Research and development costs are expensed as incurred and are recorded as research and development expense in the consolidated statements of operations. The Company's research and development costs consist of expenses incurred to identify, develop, and test its technologies for the production of isobutanol and the development of downstream applications thereof. Research and development expense includes personnel costs, consultants and related contract research, facility costs, supplies, depreciation on property, plant and equipment used in development, license fees and milestone payments paid to third parties for use of their intellectual property and patent rights, and other direct and allocated expenses incurred to support the Company's overall research and development programs.

Income Taxes. Deferred tax assets and liabilities are recognized based on the difference between the carrying amounts of assets and liabilities in the financial statements and their respective tax bases. Deferred tax assets and liabilities are measured using currently enacted tax rates in effect in the years in which those temporary differences are expected to reverse. Deferred tax assets should be reduced by a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. At December 31, 2014 and 2013, based upon current facts and circumstances, the Company had recorded a valuation allowance against its deferred tax assets of $119.4 million and $105.0 million, respectively.

Stock-Based Compensation. The Company's stock-based compensation expense includes expenses associated with share-based awards granted to employees, board members, non-employees and expenses associated with awards under its employee stock purchase plan ("ESPP"). Stock-based compensation expense for all share-based payment awards granted is based on the grant date fair value. The grant date fair value for stock option awards is estimated using the Black-Scholes option pricing model and the grant date fair value for restricted stock awards is based upon the closing price of the Company's common stock on the date of grant. The Company recognizes compensation costs for share-based payment awards granted to employees net of estimated forfeitures and recognizes stock-based compensation expense for only those awards expected to vest on a straight-line basis over the requisite service period of the award, which is currently the vesting term of up to four years. For performance based restricted stock awards, the Company recognizes expense over the requisite service period. The fair values of share-based awards granted to non-employees are remeasured as the services are performed and the awards vest, and the resulting change in value, if any, is recognized as expense during the period the related services are rendered.

Net Loss Per Share. Basic net loss per share is computed by dividing the net loss attributable to Gevo, Inc. common stockholders for the period by the weighted-average number of common shares outstanding during the period. Diluted earnings per share ("EPS") includes the dilutive effect of common stock equivalents and is computed using the weighted-average number of common stock and common stock equivalents outstanding during the reporting period. Diluted EPS for the years ending December 31, 2014, 2013 and 2012 excluded common stock equivalents because the effect of their inclusion would be anti-dilutive, or would decrease the reported loss per share.

The following table sets forth securities that could potentially dilute the calculation of diluted earnings per share. This table excludes any shares that could potentially be issued in settlement of make-whole payments associated with the 2017 Notes and the 2022 Notes.

	Year Ended December 31,		
	2014	2013	2012
Warrants to purchase common stock	37,563,548	22,563,748	1,229,998
Convertible 2017 notes	22,537,983	-	-
Convertible 2022 notes	4,725,516	4,725,514	7,905,137
Outstanding options to purchase common stock	3,673,539	2,871,563	2,940,352
Unvested restricted common stock	875,265	791,389	183,416
Total	69,375,851	30,952,214	12,258,903

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Notes to Consolidated Financial Statements (Continued)

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers ("ASU 2014 09"). The objective of ASU 2014-09 is to outline a new, single comprehensive model to use in accounting for revenue arising from contracts with customers. The new revenue recognition model provides a five-step analysis determining when and how revenue is recognized, depicting the transfer of promised goods or services to customers in an amount that reflects the consideration that is expected to be received in exchange for those goods or services. ASU 2014 09 is effective for fiscal years and interim periods within those years beginning after December 15, 2016. Early adoption is not permitted. The Company is currently evaluating the impact of adopting ASU 2014 09.

In June 2014, the FASB issued Accounting Standards Update No. 2014-10, Development Stage Entities (Topic 915): Elimination of Certain Financial Reporting Requirements, Including an Amendment to Variable Interest Entities Guidance in Topic 810, Consolidation ("ASU 2014-10"). The amendments in ASU 2014-10 remove all incremental financial reporting requirements from GAAP for development stage entities, including the removal of Topic 915, Development Stage Entities, from the FASB Accounting Standards Codification®. ASU 2014-10 is effective for the first annual period beginning after December 15, 2014. The revised consolidation standards are effective one year later, in annual periods beginning after December 15, 2015. Early adoption is permitted and the Company adopted ASU 2014-10 in the third quarter of 2014 which consisted principally of removing inception to date information on the Company's statements of operations, equity and cash flows as well as other inception to date disclosures in the notes to its consolidated financial statements.

3. Inventories

The following table sets forth the components of the Company's inventory balances (in thousands).

	December 31,	
	2014	2013
Raw materials		

Corn	$1,369	$1,456
Enzymes and other inputs	354	514
Finished goods	515	192
Work in process	610	224
Spare parts	1,444	1,195
Total inventories	$4,292	$3,581

Work in process inventory includes unfinished jet fuel and isobutanol inventory.

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Notes to Consolidated Financial Statements (Continued)

4. Property, Plant and Equipment

The following table sets forth the Company's property, plant and equipment by classification (in thousands).

		December 31,	
		2014	2013
Construction in progress	-	$ 440	$ 66,033
Plant machinery and equipment	10 years	13,367	11,009
Site improvements	10 years	7,015	7,007
Retrofit asset	20 years	65,601	-
Lab equipment, furniture and fixtures and vehicles	5 years	6,385	6,303
Demonstration plant	2 years	3,597	3,597
Buildings	10 years	2,543	2,543
Computer, office equipment and software	3 years	1,490	1,437
Leasehold improvements, pilot plant, land and support equipment	2 - 5 years	2,144	2,105
Total property, plant and equipment		102,582	100,034
Less accumulated depreciation and amortization		(21,342)	(16,559)
Property, plant and equipment, net		$ 81,240	$ 83,475

The Retrofit asset, as defined below, was placed in service in the third quarter of 2014 and is being depreciated over 20 years.

Prior to the first quarter of 2014, the Company capitalized interest on its secured debt associated with its qualifying assets, which related to the retrofit of the Agri-Energy Facility ("Retrofit asset") that was actively being developed. The Company did not capitalize any interest for the year ended December 31, 2014 as there were no qualifying assets which were actively being developed. The Company capitalized $0.2 million and $1.3 million of interest incurred during the years ended December 31, 2013 and 2012, respectively.

As of December 31, 2014 and 2013, the Company has $0.7 million and $0.7 million, respectively, of capital lease assets included in computer, office equipment and software. The Company includes amortization of capital lease assets of $0.1 million during each of the years ended December 31, 2014, 2013 and 2012, as a component of depreciation and amortization in the consolidated statements of cash flows.

The Company recorded $4.9 million, $3.4 million and $3.3 million of depreciation expense for the years ended December 31, 2014, 2013 and 2012, respectively, including $4.0 million, $2.1 million and $2.1 million of depreciation expense in cost of goods sold for the years ended December 31, 2014, 2013 and 2012, respectively.

5. Accounts Payable and Accrued Liabilities

The following table sets forth the components of the Company's accounts payable and accrued liabilities in the consolidated balance sheets (in thousands).

	December 31,	
	2014	2013
Accounts payable - trade	$2,639	$6,460
Accrued legal-related fees	2,944	2,999
Deferred revenue	-	1,000
Accrued employee compensation	801	818
Other accrued liabilities	2,204	1,753
Total accounts payable and accrued liabilities	$8,588	$13,030

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Notes to Consolidated Financial Statements (Continued)

6. Embedded Derivatives

In July 2012, the Company issued 7.5% convertible senior notes due 2022 (the "2022 Notes") which contain the following embedded derivatives: (i) rights to convert into shares of the Company's common stock, including upon a Fundamental Change (as defined in the indenture governing the 2022 Notes (the "Indenture")); and (ii) a Coupon Make-Whole Payment (as defined in the Indenture) in the event of a conversion by the holders of the 2022 Notes prior to July 1, 2017. Embedded derivatives are separated from the host contract, the 2022 Notes, and carried at fair value when: (a) the embedded derivative possesses economic characteristics that are not clearly and closely related to the economic characteristics of the host contract; and (b) a separate, stand-alone instrument with the same terms would qualify as a derivative instrument. The Company has concluded that the embedded derivatives within the 2022 Notes meet these criteria and, as such, must be valued separate and apart from the 2022 Notes and recorded at fair value each reporting period.

The Company used a binomial lattice model in order to estimate the fair value of the embedded derivative in the 2022 Notes. A binomial lattice model generates two probable outcomes, whether up or down, arising at each point in time, starting from the date of valuation until the maturity date. A lattice model was initially used to determine if the 2022 Notes would be converted, called or held at each decision point. Within the lattice model, the following assumptions are made: (i) the 2022 Notes will be converted early if the conversion value is greater than the holding value; and (ii) the 2022 Notes will be called if the holding value is greater than both (a) the Redemption Price (as defined in the Indenture) and (b) the conversion value plus the Coupon Make-Whole Payment at the time. If the 2022 Notes are called, then the holders will maximize their value by finding the optimal decision between (1) redeeming at the Redemption Price and (2) converting the 2022 Notes.

Using this lattice model, the Company valued these embedded derivatives using a "with-and-without method," where the value of the 2022 Notes including the embedded derivative, is defined as the "with", and the value of the 2022 Notes excluding the embedded derivative, is defined as the "without". This method estimates the value of the embedded derivative by looking at the difference in the values between the 2022 Notes with the embedded derivative and the value of the 2022 Notes without the embedded derivative. The lattice model requires the following inputs: (i) price of Gevo common stock; (ii) Conversion Rate (as defined in the Indenture); (iii) Conversion Price (as defined in the Indenture); (iv) maturity date; (v) risk-free interest rate; (vi) estimated stock volatility; and (vii) estimated credit spread for the Company.

The following table sets forth the inputs (Level 2 as defined in Note 18) to the lattice model that were used to value the embedded derivatives.

	December 31,	
	2014	2013
Stock price	$0.32	$1.43
Conversion Rate	175.6697	175.6697
Conversion Price	$5.69	$5.69
Maturity date	July 1, 2022	July 1, 2022
Risk-free interest rate	2.0 %	2.8 %

Estimated stock volatility	87	%	65	%
Estimated credit spread	20	%	33	%

Changes in certain inputs into the lattice model can have a significant impact on changes in the estimated fair value of the embedded derivatives. For example, the estimated fair value of the embedded derivatives will generally decrease with; (i) a decline in the stock price; (ii) decreases in the estimated stock volatility; and (iii) decrease in the estimated credit spread.

The following table sets forth the value of the 2022 Notes with and without the embedded derivatives, and the fair value of the embedded derivatives (in thousands).

	December 31,	
	2014	2013
Fair value of 2022 Notes:		
With the embedded derivative	$19,449	$15,925
Without the embedded derivative	19,449	12,455
Estimated fair value of the embedded derivative	$-	$3,470

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During the years ended December 31, 2014, 2013 and 2012, the estimated fair value of the embedded derivatives decreased by $3.5 million, $3.1 million and $17.0 million, respectively. The decline in the estimated fair value of the embedded derivatives represents an unrealized gain which has been recorded as gain from change in fair value of embedded derivatives in the consolidated statements of operations. The Company recorded the estimated fair value of the embedded derivative in 2022 notes, net in the consolidated balance sheets.

7. Derivative Warrant Liability

In December 2013, the Company sold 21,303,750 common stock units. Each common stock unit consisted of one share of the Company's common stock and a warrant to purchase one share of the Company's common stock (the "2013 Warrants"). The agreement governing the 2013 Warrants includes the following terms:

at December 31, 2014, the 2013 Warrants had an exercise price of $1.43 per share, subject to adjustment for certain events, including the issuance of stock dividends on the Company's common stock and, in certain instances, the issuance of the Company's common stock or instruments convertible into the Company's common stock at a price per share less than the exercise price of the 2013 Warrants (as a result of the public offering of common stock units in February 2015, these anti-dilution provisions were triggered and the exercise price of the 2013 Warrants have now decreased to $1.02 per share);
the 2013 Warrants have an expiration date of December 16, 2018;
a holder of 2013 Warrants may exercise the warrants through a cashless exercise if, and only if, the Company does not have an effective registration statement then available for the issuance of the shares of its common stock. If an effective registration statement is available for the issuance of its common stock a holder may only exercise the 2013 Warrants through a cash exercise;
the exercise price and the number and type of securities purchasable upon exercise of the 2013 Warrants are subject to adjustment upon certain corporate events, including certain combinations, consolidations, liquidations, mergers, recapitalizations, reclassifications, reorganizations, stock dividends and stock splits, a sale of all or substantially all of the Company's assets and certain other events; and
in the event of an extraordinary transaction (as defined in the 2013 Warrant Agreement) generally including any merger with or into another entity, sale of all or substantially all of the Company's assets, tender offer or exchange offer, or reclassification of its common stock, the Company or any successor entity will pay the 2013 Warrant holder, at such holder's option, exercisable at any time concurrently with or within 30 days after the consummation of the extraordinary transaction, an amount of cash equal to the value of such holder's warrants as determined in accordance with the Black Scholes option pricing model at the measurement date defined in the 2013 Warrant Agreement.

In August 2014, the Company sold 30,000,000 shares of common stock and warrants to purchase an additional 15,000,000 shares of common stock (the "2014 Warrants"). The agreement governing the 2014 Warrants includes the following terms:

at December 31, 2014, the 2014 Warrants have an exercise price of $0.85 per share, subject to adjustment for certain events, including the issuance of stock dividends on the Company's common stock and, in certain instances, the issuance of the Company's common stock or instruments convertible into the Company's common stock at a price per share less than the exercise price of the 2014 Warrants (as a result of the public offering of common stock units in February 2015, these anti-dilution provisions were triggered and the exercise price of the 2014 Warrants have now

decreased to $0.64 per share);
the 2014 Warrants have an expiration date of August 5, 2019;
a holder of 2014 Warrants may exercise the warrants through a cashless exercise if, and only if, the Company does not have an effective registration statement then available for the issuance of the shares of its common stock. If an effective registration statement is available for the issuance of its common stock a holder may only exercise the 2014 Warrants through a cash exercise;

the exercise price and the number and type of securities purchasable upon exercise of the 2014 Warrants are subject to adjustment upon certain corporate events, including certain combinations, consolidations, liquidations, mergers, recapitalizations, reclassifications, reorganizations, stock dividends and stock splits, a sale of all or substantially all of the Company's assets and certain other events; and

in the event of an extraordinary transaction (as defined in the 2014 Warrant Agreement) generally including any merger with or into another entity, sale of all or substantially all of the Company's assets, tender offer or exchange offer, or

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reclassification of its common stock, the Company or any successor entity will pay the 2014 Warrant holder, at such holder's option, exercisable at any time concurrently with or within 30 days after the consummation of the extraordinary transaction, an amount of cash equal to the value of such holder's warrants as determined in accordance with the Black Scholes option pricing model at the measurement date defined in the 2014 Warrant Agreement.
Based on these terms, the Company has determined that the 2013 and 2014 Warrants (together, the "Warrants") qualify as derivatives and, as such, are presented as derivative warrant liability on the consolidated balance sheets and recorded at fair value each reporting period. The fair value of the Warrants was estimated to be $3.1 million and $7.2 million as of December 31, 2014 and 2013, respectively. During the year ended December 31, 2014, the decrease in the estimated fair value of the Warrants represents an unrealized gain of $6.5 million, which has been recorded as a gain from the change in fair value of derivative warrant liability in the consolidated statements of operations. During the year ended December 31, 2013, the increase in the estimated fair value of the Warrants represents an unrealized loss of $3.2 million, which has been recorded as a loss from the change in fair value of derivative warrant liability in the consolidated statements of operations.

8. Senior Secured Debt, Secured Debt and Convertible Notes

Senior Secured Debt

In May 2014, the Company entered into a Term Loan Agreement (the "Loan Agreement") with the lenders party thereto from time to time (each, a "Lender" and collectively, the "Lenders") and Whitebox Advisors, LLC, as administrative agent for the Lenders ("Whitebox"), with a maturity date of March 15, 2017, pursuant to which the Lenders committed to provide one or more senior secured term loans to the Company in an aggregate amount of up to approximately $31.1 million on the terms and conditions set forth in the Loan Agreement (collectively, the "Term Loan"). The first advance of the Term Loan in the amount of $22.8 million (the "First Advance"), net of discounts and issue costs of $1.6 million and $1.5 million, respectively, was made to the Company in May 2014. Also in May 2014, the Company and its subsidiaries entered into an Exchange and Purchase Agreement (the "Exchange and Purchase Agreement") with WB Gevo, Ltd. and the other Lenders party thereto from time to time and Whitebox, in its capacity as administrative agent for the Lenders. Pursuant to the terms of the Exchange and Purchase Agreement, the Lenders were given the right, subject to certain conditions, to exchange all or a portion of the outstanding principal amount of the Term Loan for the Company's newly created 10% Convertible Senior Secured Notes due March 2017 (the "2017 Notes" and, together with the 2022 Notes, the "Convertible Notes"), which are convertible into shares of the Company's common stock. While outstanding, the Term Loan bore an interest rate equal to 15% per annum, of which 5% was payable in cash and 10% was payable in kind and capitalized and added to the principal amount of the Term Loan.

In June 2014, the Lenders exchanged all $25.9 million of outstanding principal amount of Term Loan provided in the First Advance for 2017 Notes, together with accrued paid-in-kind interest of $0.2 million. The terms of the 2017 Notes are set forth in an indenture by and among the Company, its subsidiaries in their capacity as guarantors, and Wilmington Savings Fund Society, FSB, as trustee (the "2017 Notes Indenture"). The 2017 Notes will mature on March 15, 2017. The 2017 Notes have a conversion price (the "Conversion Price") equal to $1.1584 per share or .8633 shares per $1 principal amount of 2017 Notes. Optional prepayment of the 2017 Notes will not be permitted. The 2017 Notes bear interest at a rate equal to 10% per annum, which is payable under certain circumstances, 5% in cash and 5% in kind and capitalized and added to the principal amount of the 2017 Notes (otherwise the full 10% is payable in cash). While the 2017 Notes are outstanding, the Company is required to maintain an interest reserve in an amount equal to 10% of the aggregate outstanding principal amount, to be adjusted on an annual basis. As of December 31, 2014, there was a balance of $2.6 million in the interest reserve account. This amount is classified as restricted deposits.

The 2017 Notes Indenture contains customary affirmative and negative covenants for agreements of this type and events of default, including, restrictions on disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain amounts of additional indebtedness, making investments, acquiring or merging with another entity, and making dividends and other restricted payments, unless the Company receives the prior approval of the required holders. The 2017 Notes Indenture also contains limitations on the ability of the holder to assign or otherwise transfer its interest in the 2017 Notes. The 2017 Notes are secured by a lien on substantially all of the assets of the Company and is guaranteed by Agri-Energy and Gevo Development (together, the "Guarantor Subsidiaries" or "Guarantors"). On June 6, 2014, in connection with the issuance of the 2017 Notes, the Company and the Guarantor Subsidiaries entered into a Pledge and Security Agreement in favor of the collateral trustee. The collateral pledged includes substantially all of the assets of the Company and the Guarantor Subsidiaries, including intellectual property and real property. Agri-Energy has also entered into a mortgage with respect to the real property located in Luverne Minnesota.

The holders of the 2017 Notes may, at any time until the close of business on the business day immediately preceding the maturity date, convert the principal amount of the 2017 Notes, or any portion of such principal amount which is at least $1,000, into shares of the Company's common stock. Upon conversion of the 2017 Notes, the Company will deliver shares of common stock at an initial conversion rate of .8633 shares of common stock per $1 principal amount of the 2017 Notes (equivalent to an initial conversion price of approximately $1.1584 per share of common stock). Such conversion rate is subject to adjustment in certain circumstances, including in the event that there is a dividend or distribution paid on shares of the common stock or a subdivision, combination or reclassification of the common stock. The Company also has the right to increase the conversion rate (i) by any amount for a period of at least 20 business days if the Company's board of directors determines that such increase would be in the Company's best interest or (ii) to avoid or diminish any income tax to holders of shares of common stock or rights to purchase shares of common stock in connection with any dividend or distribution. In addition, subject to certain conditions described herein, each holder who exercises its option to voluntarily convert its 2017 Notes will receive a make-whole payment in an amount equal to any unpaid interest that would otherwise have been payable on such 2017 Notes through the maturity date (a "Voluntary Conversion Make-Whole Payment"). Subject to certain limitations, the Company may pay any Voluntary Conversion Make-Whole Payments either in cash or in shares of common stock, at its election.

The Company has the right to require holders of the 2017 Notes to convert all or part of the 2017 Notes into shares of its common stock if the last reported sales price of the common stock over any 10 consecutive trading days equals or exceeds 150% of the applicable conversion price (a "Mandatory Conversion"). Each holder whose 2017 Notes are converted in a Mandatory Conversion will receive a make-whole payment for the converted notes in an amount equal to any unpaid interest that would have otherwise been payable on such 2017 Notes through the maturity date (a "Mandatory Conversion Make-Whole Payment"). Subject to certain limitations, the Company may pay any Mandatory Conversion Make-Whole Payments either in cash or in shares of common stock, at its election. The Company did not require any holders to convert in 2014.

If a fundamental change of the Company occurs, the holders of 2017 Notes may require the Company to repurchase all or a portion of the 2017 Notes at a cash repurchase price equal to 100% of the principal amount of such 2017 Notes, plus accrued and unpaid interest, if any, through, but excluding, the repurchase date, plus a cash make-whole payment for the repurchased 2017 Notes in an amount equal to any unpaid interest that would otherwise have been payable on such convertible 2017 Notes through the maturity date. A fundamental change includes, amongst other things, the Company's common stock ceasing to be listed on a national securities exchange. See Note 20 for information on the Company's listing status.

On July 31, 2014, the Company entered into amendments to the 2017 Notes Indenture to, among other things, permit the offering and issuance of the 2014 Warrants and the incurrence of indebtedness by the Company under such warrants.

On January 29, 2015, we commenced a conversion forbearance period in accordance with the terms of the 2017 Notes during which neither the Company nor any holder of the 2017 Notes has the right to convert any principal amount of the 2017 Notes into shares of Common Stock. The conversion forbearance period will terminate when the Company provides notice to the trustee for the 2017 Notes that it has a sufficient number of authorized and unissued shares of Common Stock to permit conversion of all of the outstanding 2017 Notes. If, on June 27, 2015, the conversion forbearance period has not been terminated and we have failed to reserve out of our authorized but unissued shares or shares held in treasury, sufficient shares of Common Stock to provide for the conversion of all of the outstanding 2017 Notes, an event of default under the terms of the 2017 Notes will be triggered. Upon such occurrence, 100% of the principal amount and all accrued and unpaid interest under the 2017 Notes will become immediately due and payable. Any default under the terms of the 2017 Notes could have a material adverse effect on our business, results of operations and financial condition

In connection with the transactions described above, the Company also entered into a Registration Rights Agreement, dated May 9, 2014 (the “Registration Rights Agreement”), pursuant to which the Company filed a registration statement on Form S-3 registering the resale of approximately 17.5 million shares of the Company’s common stock which are issuable under the 2017 Notes. This registration statement was declared effective on July 25, 2014. The Company expects to file additional registration statements on Form S-3 or to amend filings in order to register additional shares of common stock of the Company for sale or resale, as necessary in connection with the 2017 Notes.

The Company has elected the fair value option for accounting of the Term Loan and 2017 Notes in order for management to mitigate income statement volatility caused by measurement basis differences between the embedded instruments and to eliminate complexities of applying certain accounting models. Accordingly, the principal amount of 2017 Notes outstanding at December 31, 2014 of $26.1 million has been recorded at its estimated fair value of $25.5 million and is included in the 2017 Notes recorded at fair value on the consolidated balance sheets at December 31, 2014. Debt issuance costs of $1.5 million were expensed at issuance and debt issuance costs $0.6 million were expensed in subsequent periods in connection with the election of the fair value option. Change in the estimated fair value of the 2017 Notes represents an unrealized gain included in gain from change in fair value of 2017 Notes in the consolidated statement of operations. The fair value of the 2017 Notes at the issuance date were equal to the net proceeds from the

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Notes to Consolidated Financial Statements (Continued)

loan. During the year ended December 31, 2014, the Company incurred cash interest expense of $1.6 million and capitalized non-cash paid-in-kind interest expense of $0.2 million into the principal amount of 2017 Notes as of December 31, 2014.

The following table sets forth the inputs to the lattice model that were used to value the Term Loan and 2017 Notes for which the fair value option was elected.

	December 31, 2014
Stock price	$ 0.32
Conversion Rate	863.3
Conversion Price	$ 1.16
Maturity date	March 15, 2017
Risk-free interest rate	0.80 %
Estimated stock volatility	85.0 %
Estimated credit spread	15.0 %

The following table sets forth information pertaining to the Term Loan and 2017 Notes which is included in the Company's consolidated balance sheets (in thousands).

	Principal Amount of Term Loans	Principal Amount of 2017 Notes	Change in Estimated Fair Value	Total
Balance - December 31, 2013	$-	$-	$ -	$-
Issuance of Term Loan	25,907	-	-	25,907
Exchange of Term Loan for 2017 Notes	(25,907)	25,907	-	-
Non-cash paid-in-kind interest expense	-	201	-	201
Gain from change in fair value of debt	-	-	(648)	(648)
Balance - December 31, 2014	$-	$26,108	$ (648)	$25,460

Changes in certain inputs into the lattice model can have a significant impact on changes in the estimated fair value of the 2017 Notes. For example, the estimated fair value will generally decrease with: (i) a decline in the stock price; (ii) decreases in the estimated stock volatility; and (iii) a decrease in the estimated credit spread. The change in the estimated fair value of the 2017 Notes during the year ended December 31, 2014, represents an unrealized gain which has been recorded as a gain from change in fair value of 2017 Notes in the consolidated statements of operations.

Secured Debt.

The following table sets forth information pertaining to the Company's secured debt issued to TriplePoint Capital LLC ("TriplePoint") which is included in the Company's consolidated balance sheets (in thousands).

	December 31,	
	2014	2013
Secured debt		
TriplePoint - September 2010 Advance	$-	$917
TriplePoint - October 2011 Advance	-	6,657
TriplePoint - January 2012 Advance	-	3,495
TriplePoint - Matures May 2017	822	-
Total secured debt	822	11,069
Less:		
Unamortized debt discounts	(49)	(942)
	773	10,127
Less current portion of debt	(288)	(788)
Long-term portion of debt	$485	$9,339

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Debt discounts associated with the issuance of the Company's secured debt and convertible notes are recorded on the consolidated balance sheets as a reduction to related debt balances. The Company amortizes debt discount to interest expense over the term of the debt or expected life of the debt using the effective interest method.

Gevo Loan Agreement. In August 2010, Gevo, Inc. entered into a loan and security agreement (the "Gevo Loan Agreement") with TriplePoint, pursuant to which the Company borrowed $5.0 million. In July 2012, the Company used $5.4 million of the proceeds from the July 2012 offering of the 2022 Notes to pay in full all amounts outstanding under the Gevo Loan Agreement, including an end-of-term payment equal to 8% of the amount borrowed.

Original Agri-Energy Loan Agreement. In August 2010, Gevo Development borrowed $12.5 million from TriplePoint to finance its acquisition of Agri-Energy. In September 2010, upon completion of the acquisition, the loan and security agreement (the "Original Agri-Energy Loan Agreement") was amended to make Agri-Energy the borrower under the facility. In December 2013, the Company used $5.1 million of the proceeds from the offering of common stock units that was completed in December 2013 to pay off the remaining $5.1 million in outstanding principal under this loan. Pursuant to the amendments described below, the Company had also agreed to pay the end-of-term payment of $1.0 million associated with this loan in 12 equal monthly payments commencing January 2014 and ending December 2014.

Amended Agri-Energy Loan Agreement. In October 2011, the Original Agri-Energy Loan Agreement was amended and restated (the "Amended Agri-Energy Loan Agreement") to provide Agri-Energy with additional term loan facilities of up to $15.0 million to pay a portion of the costs, expenses, and other amounts associated with the retrofit of the Agri-Energy Facility to produce isobutanol. The Amended Agri-Energy Loan Agreement includes customary affirmative and negative covenants for agreements of this type and events of default. In October 2011, Agri-Energy borrowed $10.0 million under the additional term loan facilities which matures in October 2015. In January 2012, Agri-Energy borrowed an additional $5.0 million under the additional term loan facilities which matures December 2015, bringing the total borrowed under the additional term loan facilities to $15.0 million. The aggregate amount outstanding under the additional term loan facilities bears interest at a rate equal to 11% and is subject to an end-of-term payment equal to 5.75% of the amount borrowed. As security for its obligations under the Amended Agri-Energy Loan Agreement, Agri-Energy granted TriplePoint a security interest in and lien upon all of its assets. Gevo, Inc. also guaranteed Agri-Energy's obligations under the Amended Agri-Energy Loan Agreement. As additional security, concurrently with the execution of the Amended Agri-Energy Loan Agreement, (i) Gevo Development entered into a limited recourse continuing guaranty in favor of TriplePoint, (ii) Gevo Development entered into an amended and restated limited recourse membership interest pledge agreement in favor of TriplePoint, pursuant to which it pledged the membership interests of Agri-Energy as collateral to secure the obligations under its guaranty and (iii) Gevo, Inc. entered into an amendment to its security agreement with TriplePoint (the "Gevo Security Agreement"), which secured its guarantee of Agri-Energy's obligations under the Amended Agri-Energy Loan Agreement.

June 2012 Amendments. In June 2012, Gevo, Inc. entered into (i) an amendment (the "Security Agreement Amendment") to the Gevo Security Agreement and (ii) an amendment (the "Gevo Loan Amendment") to the Gevo Loan Agreement. In addition, concurrently with the execution of the Security Agreement Amendment and the Gevo Loan Amendment, Agri-Energy entered into an amendment to the Amended Agri-Energy Loan Agreement. These amendments, among other things, permitted the issuance of the 2022 Notes.

December 2013 Amendments. In December 2013, Gevo, Inc. entered into additional amendments to certain of its existing agreements with TriplePoint and entered into a new intellectual property assignment agreement in favor of

TriplePoint to, among other things:

- permit the issuance of warrants associated with the Company's December 2013 offering of common stock units;
- waive any prepayment premium (but not any end-of-term payment) with respect to the Original Agri-Energy Loan Agreement and the Amended Agri-Energy Loan Agreement;
- expand the events of default to add as an event of default the repurchase of the Warrants;
- grant TriplePoint a lien and security interest in all of the intellectual property of the Company;
- re-price the three outstanding warrants to purchase common stock of the Company that are held by TriplePoint, which as of December 31, 2014 are exercisable in the aggregate for 388,411 shares of the Company's common stock, to reflect an exercise price equal to $1.18 per share;
- waive the requirement for Agri-Energy to make principal amortization payments on the Amended Agri-Energy Loan Agreement through December 31, 2014 (the "Restructure Period");

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- raise the interest rates under the Amended Agri-Energy Loan Agreement to 13% during the Restructure Period (provided that such rate will return to 11% following the Restructure Period so long as no event of default under the Amended Agri-Energy Loan Agreement shall be continuing on the last day of the Restructure Period); and
- during the period beginning January 2015, and continuing through and including the final monthly installment due under the Amended Agri-Energy Loan Agreement, adjust the monthly payment due and payable to 50% of the fully amortizing amount of principal and interest otherwise due and payable for such month, applied first to outstanding accrued interest and then to principal, with the remaining 50% portion of such required payments of principal and interest for such month accruing and made due and payable at the time of the final monthly installment.

May 2014 Amendments. In May 2014, the Company and its subsidiaries entered into a Consent Under and Third Amendment to Amended and Restated Plain English Growth Capital Loan and Security Agreement and Omnibus Amendment to Loan Documents (the “2014 Amendment”) pursuant to which TriplePoint amended its agreements with the Company and its subsidiaries and consented to (a) the execution, delivery, and performance of the Loan Agreement, the Exchange and Purchase Agreement, the Registration Rights Agreement, the 2017 Notes Indenture, the 2017 Notes, and the other documents related thereto (collectively the “Senior Loan Documents”); (b) the incurrence of the Term Loan with Whitebox and any other indebtedness under the Senior Loan Documents (collectively, the “Senior Indebtedness”); (c) the consummation of the exchange of the Term Loan for the 2017 Notes; (d) the offering, issuance and sale of the 2017 Notes to Whitebox and the conversion of any 2017 Notes into the common stock of the Company pursuant to the terms of the 2017 Notes Indenture; (e) the guaranty of the Senior Indebtedness provided by the Guarantors; (f) the liens granted by each of the Company and the Guarantors to secure the Senior Indebtedness and the other obligations under the Senior Loan Documents; (g) the consummation of any transactions contemplated by, and the terms of, the Senior Loan Documents by the Company and the Guarantors; and (h) the payment and performance of any of the obligations under the Senior Loan Documents by the Company and the Guarantors, including the making of dividends and distributions by the Guarantors to the Company for the purpose of enabling the Company to make any payments under the Senior Loan Documents.

As part of the 2014 Amendment, the Company repaid $9.8 million in principal payments due under the foregoing loan agreements with TriplePoint and entered into an amended loan agreement with TriplePoint. At such time, debt issuance costs were written off. At December 31, 2014, the amended loan agreement had a principal balance of $0.8 million, which amortizes over 36 months and bears interest at a rate equal to 9% per annum and matures in May 2017. There were no additional concessions or terms of the agreement which would require recognition of a gain or loss due to this amended agreement. As of December 31, 2014, Agri-Energy has granted TriplePoint a junior security interest in all of its assets as security for its obligations under the Amended Agri-Energy Loan Agreement.

On July 31, 2014, the Company entered into amendments to the Amended Agri-Energy Loan Agreement and the Gevo Security Agreement to, among other things, permit the offering and issuance of the 2014 Warrants and the incurrence of indebtedness by the Company under such warrants.

On January 28, 2015, the Company entered into further amendments to the Amended Agri-Energy Loan Agreement and the Gevo Security Agreement to, among other things, permit the offering and issuance of additional warrants and the incurrence of indebtedness by the Company under such additional warrants.

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2022 Notes

The following table sets forth information pertaining to the 2022 Notes which is included in the Company's consolidated balance sheets (in thousands).

	Embedded Derivatives	Principal Amount of 2022 Notes	Debt Discount	Total
Balance - December 31, 2012	$ 11,000	$45,000	$(30,446)	$25,554
Amortization of debt discount	-	-	3,300	3,300
Write-off of debt discount associated with conversion of debt	-	-	11,277	11,277
Gain from change in fair value of embedded derivatives	(3,114)	-	-	(3,114)
Conversion	(4,416)	(18,100)	-	(22,516)
Balance - December 31, 2013	$ 3,470	$26,900	$(15,869)	$14,501
Amortization of debt discount	-	-	2,648	2,648
Gain from change in fair value of embedded derivatives	(3,470)	-	-	(3,470)
Balance - December 31, 2014	$ -	$26,900	$(13,221)	$13,679

In July 2012, the Company sold $45.0 million in aggregate principal amount of 2022 Notes, with net proceeds of $40.9 million, after accounting for $2.7 million and $1.4 million of discounts and issue costs, respectively. The 2022 Notes bear interest at 7.5% which is to be paid semi-annually in arrears on January 1 and July 1 of each year.The 2022 Notes will mature in July 2022, unless earlier repurchased, redeemed or converted. During the years ended December 31, 2014, 2013 and 2012, the Company recorded $2.8 million, $3.4 million and $0.4 million, respectively, of non-cash interest expense related to the amortization of debt discounts and issue costs and recorded $2.0 million, $2.3 million and $1.6 million, respectively, of cash interest expense related to the 2022 Notes. The amortization of debt issue costs and debt discounts and cash interest are included as a component of interest expense in the consolidated statements of operations. The Company amortizes debt discounts and debt issue costs associated with the 2022 Notes using an effective interest rate of 40% from the issuance date through July 2017, a five-year period, which represents the date the holders can require the Company to repurchase the 2022 Notes.

The 2022 Notes are convertible at an initial conversion rate of 175.6697 shares of the Company's common stock per $1,000 principal amount of 2022 Notes, subject to adjustment in certain circumstances as described in the Indenture. This is equivalent to an initial conversion price of approximately $5.69 per share of common stock. Holders may convert the 2022 Notes at any time prior to the close of business on the third business day immediately preceding the maturity date of July 1, 2022.

If a holder elects to convert its 2022 Notes prior to July 1, 2017, such holder shall be entitled to receive, in addition to the consideration upon conversion, a Coupon Make-Whole Payment. The Coupon Make-Whole Payment is equal to the sum of the present values of the number of semi-annual interest payments that would have been payable on the 2022 Notes that a holder has elected to convert from the last day through which interest was paid up to but excluding July 1, 2017, computed using a discount rate of 2%. The Company may pay any Coupon Make-Whole Payment either in cash or in shares of common stock at its election. Under the Amended Agri-Energy Loan Agreement with TriplePoint, the Company is prohibited from making any Coupon Make-Whole Payments in cash prior to the payment in full of all remaining outstanding obligations under the Amended Agri-Energy Loan Agreement. If the Company elects to pay in common stock, the stock will be valued at 90% of the average of the daily volume weighted average prices of the Company’s common stock for the 10 trading days preceding the date of conversion. As of December 31, 2014, certain holders of the 2022 Notes elected to convert notes totaling $18.1 million, reducing the principal balance of the 2022 Notes to $26.9 million. Upon conversion, the 2022 Note holders received 3,179,608 shares of common stock in payment of converted principal of $18.1 million and, pursuant to the terms of the Indenture, such holders also received 2,957,775 shares of common stock in settlement of Coupon Make-Whole Payments of $4.9 million.

If a Make-Whole Fundamental Change (as defined in the Indenture) occurs and a holder elects to convert its 2022 Notes prior to July 1, 2017, the applicable conversion rate will increase based upon reference to the table set forth in Schedule A of the Indenture. In no event will the conversion rate increase to more than 202.0202 per $1,000 principal amount of 2022 Notes.

If a Fundamental Change (as defined in the Indenture) occurs at any time, then each holder will have the right to require the Company to repurchase all of such holder’s 2022 Notes, or any portion thereof that is an integral multiple of $1,000 principal amount, for cash at a repurchase price of 100% of the principal amount of such 2022 Notes plus any accrued and unpaid interest thereon through, but excluding, the repurchase date. Additionally, on July 1, 2017, each holder will have the right to require the Company to repurchase all of such holder’s 2022 Notes, or any portion thereof that is an integral multiple of $1,000 principal amount, for cash at a repurchase price of 100% of the principal amount of such 2022 Notes plus any accrued and unpaid interest thereon through, but excluding, the repurchase date. A Fundamental Change includes, amongst other things, the Company’s common stock ceasing to be listed on a national securities exchange. See Note 20 for information on the Company’s listing status

The Company shall have a provisional redemption right (“Provisional Redemption”) to redeem, at its option, all or any part of the 2022 Notes at a price payable in cash, beginning on July 1, 2015 and prior to July 1, 2017, provided that the Company’s common stock for 20 or more trading days in a period of 30 consecutive trading days ending on the trading day immediately prior to the date of the redemption notice exceeds 150% of the conversion price in effect on such trading day. On or after July 1, 2017, the Company shall have an optional redemption right (“Optional Redemption”) to redeem, at its option, all or any part of the 2022 Notes at a price payable in cash. The price payable in cash for the Optional Redemption or Provisional Redemption is equal to 100% of the principal amount of 2022 Notes redeemed plus any accrued and unpaid interest thereon through, but excluding, the repurchase date.

If there is an Event of Default (as defined in the Indenture) under the 2022 Notes, the holders of not less than 25% in principal amount of Outstanding Notes (as defined in the Indenture) by notice to the Company and the trustee may, and the trustee at the request of such holders shall, declare the principal amount of all the Outstanding Notes and accrued and unpaid interest thereon to be due and payable immediately.

Outstanding Obligations

The following sets forth the Company’s obligations to repay principal by year relating to its secured debt with TriplePoint and the Convertible Notes at December 31, 2014 (in thousands).

	Amount
2015	$319
2016	348
2017	26,263
2018	-
2019 and thereafter	26,900
Total	$53,830

9. Capital Stock

As of December 31, 2014, the Company has authorized 250.0 million and 10.0 million shares of common and preferred stock, respectively. The holders of the Company’s common stock have one vote per share. The board of directors has the authority, without action by its stockholders, to designate and issue shares of preferred stock in one or more series and to fix the rights, preferences, privileges and restrictions thereof. The Company's amended and restated certificate of incorporation provides that the Company's board of directors will be divided into three classes, with staggered three-year terms and provides that all stockholder actions must be effected at a duly called meeting of the stockholders and not by a written consent. The amended and restated certificate of incorporation also provides that only the board of directors may call a special meeting of the stockholders and requires the approval of either a majority of the directors then in office or 66 2/3% of the voting power of all then outstanding capital stock for the adoption, amendment or repeal of any provision of the Company's amended and restated bylaws. In addition, the amendment or repeal of certain provisions of the Company's amended and restated certificate of incorporation requires the approval of 66 2/3% of the voting power of all then outstanding capital stock.

Common Stock Offerings. In August 2014, the Company issued and sold 30,000,000 common stock units at an offering price of $0.60 per common stock unit. Each common stock unit consisted of one share of the Company's common stock and a 2014 Warrant to purchase 0.5 shares of the Company's common stock, resulting in net proceeds of approximately $16.4 million after deducting paid and unpaid underwriting discounts and commissions and other offering costs. The Company allocated $2.4 million of the proceeds from the offering of common stock units to the 2014 Warrants based upon their estimated value which was recorded as additional paid-in capital.

In December 2013, the Company issued and sold 21,303,750 common stock units at an offering price of $1.35 per common stock unit. Each common stock unit consisted of one share of the Company's common stock and a 2013 Warrant to purchase one

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share of the Company's common stock, resulting in net proceeds of $26.4 million after deducting paid and unpaid underwriting discounts and commissions and other offering costs. The Company allocated $4.0 million of the proceeds from the offering of common stock units to the 2013 Warrants based upon their estimated value which was recorded as additional paid-in capital.

In July 2012, the Company issued 12.5 million shares of its common stock at an offering price of $4.95 per share, resulting in net proceeds of $57.4 million, after deducting underwriting discounts and commissions and other offering costs.

In February 2011, the Company completed its initial public offering issuing 8,222,500 shares of common stock at an offering price of $15.00 per share, resulting in net proceeds of $110.4 million, after deducting underwriting discounts and commissions and other offering costs. Upon the closing of the initial public offering, the Company's outstanding shares of convertible preferred stock were automatically converted into 16,329,703 shares of common stock and the outstanding convertible preferred stock warrants were automatically converted into common stock warrants to purchase a total of 398,032 shares of common stock.

Common Stock Warrants.

The following table sets forth a summary of outstanding warrants to purchase shares of the Company's common stock as of December 31, 2014.

	Issue Date	Expiration Date	Outstanding	Exercise Price
Common Stock Warrants	December 2013	December 2018	21,303,550	$ 1.43
Common Stock Warrants	August 2014	August 2019	15,000,000	$ 0.85
CDP Gevo, LLC	September 2009	September 2016	812,771	$ 2.70
TriplePoint Capital LLC	August 2010	August 2017	199,999	$ 1.18
TriplePoint Capital LLC	October 2011	October 2018	157,035	$ 1.18
TriplePoint Capital LLC	January 2012	October 2018	31,407	$ 1.18
Genesis Select	June 2013	June 2018	30,000	$ 1.63
Virgin Green Fund I, L.P.	January 2008	February 2016	28,786	$ 5.48
Total			37,563,548	

See Note 13 for a discussion of the warrants issued to CDP Gevo, LLC ("CDP") for the purchase of shares of the Company's common stock. See Note 7 for a discussion of all Warrants issued and subsequent changes in the exercise price.

In connection with signing its loan agreements with TriplePoint, the Company has issued warrants to purchase shares of its common stock. The fair values of the warrants were estimated using the Black-Scholes option pricing model. The Company records the fair value of these warrants as debt discount which is amortized to interest expense over the terms of the borrowing. In conjunction with the December 2013 amendment to the debt agreements with TriplePoint (see Note 8), the exercise price for the three outstanding warrants to purchase shares of the Company's common stock held by TriplePoint were re-priced to reflect an exercise price equal $1.18. The Company calculated the estimated incremental fair value of the warrants based upon the Black-Scholes option pricing model. The incremental fair value is determined as the difference between the estimated fair value of the warrants immediately prior the re-pricing and the estimated fair value of the warrants after the re-pricing. The Company recorded the incremental fair value, $0.2 million, as a component of debt discount.

10. Equity Incentive Plans

2006 Omnibus Securities and Incentive Plan. During 2006, the Company established the Gevo, Inc. 2006 Omnibus Securities and Incentive Plan (the "2006 Plan"). Pursuant to the 2006 Plan, the Company granted stock awards to employees, directors, and consultants of the Company. Upon adoption of the Gevo, Inc. 2010 Stock Incentive Plan (as amended, the "2010 Plan"), no further grants can be made under the 2006 Plan. At December 31, 2014, a total of 1,612,589 shares of Gevo common stock were reserved for issuance upon the exercise of outstanding stock option awards under the 2006 Plan. To the extent outstanding awards under the 2006 Plan expire, or are forfeited, cancelled, settled, or become unexercisable without the issuance of shares, the shares of common stock subject to such awards will be available for future issuance under the 2010 Plan.

2010 Stock Incentive Plan. In February 2011, the Company's stockholders approved the 2010 Plan, which was subsequently amended in June 2013, and provides for the grant of non-qualified stock options, incentive stock options, stock appreciation rights, restricted stock, restricted stock units and other equity awards to employees of the Company. Stock options granted under the 2010 Plan have an exercise price that is at least equal to the fair market value of the Company's common stock on the date the stock option

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is granted and expire ten years after the date of grant. At December 31, 2014, a total of 1,957,844 shares of Gevo common stock were reserved for issuance upon the exercise of outstanding stock option awards under the 2010 Plan, and an additional 1,481,824 shares were available for grant.

Employee Stock Purchase Plan. In February 2011, the Company's stockholders approved the ESPP. The offering periods for the ESPP are from January 1 to June 30 and from July 1 to December 31 of each calendar year. The Company has reserved 1,285,643 shares of common stock for issuance under the ESPP, of which 1,150,939 shares as of December 31, 2014 are available for future issuance. The purchase price of the common stock under the ESPP is 85% of the lower of the fair market value of a share of common stock on the first or last day of the purchase period.

11. Stock-Based Compensation

Stock-Based Compensation Expense. The following table sets forth the Company's stock-based compensation expense (in thousands).

	Year Ended December 31,		
	2014	2013	2012
Stock options and ESPP awards			
Research and development	$ 303	$ 640	$ 808
Selling, general and administrative	837	1,837	2,628
Restricted stock awards			
Research and development	487	14	328
Selling, general and administrative	1,233	1,381	1,599
Warrants issued			
Selling, general and administrative	-	39	2,616
Non-cash stock-based compensation	2,860	3,911	7,979
Modified stock option awards			
	-	-	890

Selling, general and administrative			
Purchase of Class B interests of Gevo Development from CDP for cash			
Selling, general and administrative	-	-	74
Cash stock-based compensation	-	-	964
Total stock-based compensation	$ 2,860	$ 3,911	$ 8,943

Determining Fair Value of Share-Based Payment Awards. The following table sets forth the Black-Scholes option pricing model assumptions and resulting grant date fair value for stock options granted.

	Year Ended December 31,		
	2014	2013	2012
Risk-free interest rate	1.74 %	1.26 %	1.17 %
Expected dividend yield	None	None	None
Expected volatility factor	71.13%	71.96%	78.86%
Expected option life (in years)	5.75	5.8	5.78
Weighted average grant date fair value	$0.89	$1.18	$4.74

Due to the Company's limited history of grant activity, the expected life of options granted was estimated using the "simplified method" in accordance with SEC Staff Accounting Bulletin 110, where the expected life equals the arithmetic average of the vesting term and the original contractual term of the options. The volatility factor was determined based upon management's estimate using inputs from comparable public companies. The risk-free interest rate assumption is determined based upon observed interest rates

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appropriate for the expected term of the Company's employee stock options. The dividend yield assumption is based on the Company's history of dividend payouts.

An annual forfeiture rate is estimated at the time of grant for all share-based payment awards, and revised, if necessary, in subsequent periods if the actual forfeiture rate differs from the Company's estimate. Forfeitures have been estimated by the Company based upon historical and expected forfeiture experience. Estimated forfeiture rates used for the periods presented were from 0% to 5%.

Stock Option Award Activity. Stock option activity under the Company's option plans at December 31, 2013 and changes during the year ended December 31, 2014 were as follows.

	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Options outstanding at December 31, 2013	2,871,563	$ 5.15	6.57	$ 478
Granted	1,128,536	1.40		
Canceled or forfeited	(470,686)	6.90		
Exercised	(5,000)	0.47		
Options outstanding at December 31, 2014	3,524,413	$ 3.72	5.61	$ -
Options exercisable at December 31, 2014	2,532,633	$ 4.54	5.16	$ -
Options vested and expected to vest at December 31, 2014	3,519,749	$ 3.72	5.61	$ -

The aggregate intrinsic values in the table above represent the total pre-tax intrinsic values (the difference between the closing price of Gevo's common stock on the last trading day of the 2014 calendar year and the exercise price, multiplied by the number of in-the-money stock option shares) that would have been received by the option holders had all in-the-money outstanding stock options been exercised on December 31, 2014. The total intrinsic value of options exercised during the years ended December 31, 2014, 2013 and 2012 was $0.0 million, $0.2 million and $2.2 million, respectively.

The following table summarizes information associated with outstanding and exercisable stock options at December 31, 2014.

	Options Outstanding			Options Exercisable		
Range of Exercise	Number of	Weighted-Average Exercise	Weighted-Average Remaining Contractual Life	Number of	Weighted-Average Exercise	Weighted-Average Remaining Contractual Life

Prices	Options	Price	in Years	Options	Price	in Years
$0.46 to $0.49	377,533	$ 0.46	2.35	377,533	$ 0.46	2.35
$0.50 to $0.99	76,030	$ 0.88	9.48	12,700	$ 0.88	9.46
$1.00 to $1.89	1,847,752	$ 1.48	7.52	948,553	$ 1.43	6.13
$2.70 to $8.73	582,590	$ 2.88	5.00	567,502	$ 2.87	4.94
$9.41 to $9.57	210,466	$ 9.41	6.55	196,303	$ 9.41	6.51
$9.57 to $12.67	354,906	$ 10.40	4.73	354,906	$ 10.40	4.73
$14.81 to $19.14	224,262	$ 17.17	5.58	224,262	$ 17.27	5.58

As of December 31, 2014, $1.2 million of total unrecognized compensation cost related to stock options is expected to be recognized as an expense by the Company in the future over a weighted-average period of approximately two years.

The Company settles stock option exercises with newly issued common shares. No tax benefits were realized by the Company in connection with these exercises as the Company maintains net operating loss carryforwards and has established a valuation allowance against the entire tax benefit.

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Notes to Consolidated Financial Statements (Continued)

Restricted Stock. The Company periodically grants restricted stock awards to employees (including board members) and non-employee consultants. The vesting period for restricted stock awards granted may be based upon a service period or based upon the attainment of performance objectives. The Company recognizes stock-based compensation over the vesting period, generally three to six years, for awards that vest based upon a service period. For performance based restricted stock awards, the Company recognizes expense over the requisite service period.

Non-vested restricted stock awards at December 31, 2013 and changes during the year ended December 31, 2014 were as follows.

	Number of Shares	Weighted-Average Grant-Date Fair Value
Non-vested at December 31, 2013	791,389	$ 2.52
Granted	1,138,081	1.00
Vested	(983,530)	1.74
Canceled or forfeited	(70,675)	1.83
Non-vested at December 31, 2014	875,265	$ 1.47

The total fair value of restricted stock that vested during the year ended December 31, 2014, 2013 and 2012 was $1.5 million, $1.5 million and $0.9 million, respectively. As of December 31, 2014, the total unrecognized compensation expense, net of estimated forfeitures, relating to restricted stock awards was $1.4 million, which is expected to be recognized over a weighted-average period of approximately two years.

12. Significant Agreements

Off-Take, Distribution and Marketing Agreements

Exclusive Supply Agreement with LANXESS. In January 2011, the Company entered into an exclusive supply agreement, as amended, with LANXESS Inc. (“LANXESS”) pursuant to which LANXESS has granted the Company an exclusive first right to supply LANXESS and its affiliates with certain of their requirements for biobased isobutanol during the term of the agreement. The Company’s exclusive first right to supply biobased isobutanol to LANXESS and its affiliates will be subject to the terms of a supply agreement to be mutually agreed upon by the parties at a later date. Additionally, pursuant to the terms of the exclusive supply agreement the Company has granted LANXESS, subject to certain exceptions and conditions, (i) an exclusive first right to acquire its biobased isobutanol to produce isobutylene and butenes for use and sale in the field of chemicals, and (ii) an exclusive right to use the Company’s isobutanol to produce butadiene and isobutylene for use in the production of polybutadiene and butyl rubber. No amounts have been incurred under this agreement as of December 31, 2014.

Off-Take and Marketing Alliance Agreement and Renewable Fuels Supply Chain Agreement with Mansfield Oil Company. In August 2011, the Company entered into a commercial off-take agreement with Mansfield Oil Company (“Mansfield”), to distribute isobutanol-based fuel into the petroleum market. The agreement allows Mansfield to blend the Company's isobutanol for its own use, and to be a distributor of the Company's isobutanol for a term of five years. The Company also entered into a three-year supply services agreement, with automatic one-year renewals thereafter, with C&N, a Mansfield subsidiary ("C&N"), which will provide supply chain services including logistics management, customer service support, invoicing and billing services. No amounts have been recorded under these agreements as of December 31, 2014.

Ethanol Marketing Agreement with C&N, a subsidiary of Mansfield Oil Company. Substantially all ethanol sold by Agri-Energy from the date of acquisition through December 31, 2012 and during the year ended December 31, 2014 was sold to C&N pursuant to an ethanol purchase and marketing agreement. The Company did not sell any ethanol during the year ended December 31, 2013. The ethanol purchase and marketing agreement with C&N was entered into in April 2009 and automatically renews for subsequent one-year terms unless either party terminates the agreement 60 days before the end of term. Under the terms of the agreement, C&N will market substantially all of Agri-Energy's ethanol production from the Agri-Energy Facility and will pay to Agri-Energy the gross sales price paid by the end customer less expenses and a marketing fee.

Jet Fuel Supply Agreements with the Defense Logistics Agency (U.S. Air Force, U.S. Army and U.S. Navy). During September 2011, the Company was awarded a contract for the procurement of up to 11,000 gallons of alcohol-to-jet (ATJ) fuel for the purposes of certification and testing by the U.S. Air Force. The term of the agreement was through December 2012. The Company recorded $0.6 million of revenue under this award during the year ended December 31, 2012. In September 2012, the Company was awarded

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an additional contract by the U.S. Air Force for the procurement of up to 45,000 gallons of biojet fuel. In March 2013, the Company entered into a contract with the Defense Logistics Agency to supply the U.S. Army with 3,650 gallons of biojet fuel and in May 2013 this initial order was increased by 12,500 gallons. In September 2013, the Company entered into a contract with the Defense Logistics Agency to supply the U.S. Navy with 20,000 gallons of biojet fuel. During the years ended December 31, 2014, 2013 and 2012, the Company recorded $2.0 million, $1.9 million and $0.6 million, respectively, of revenue associated with shipments of biojet fuel under these contracts.

Development and Commercialization Agreements

Development and Commercialization Agreements with ICM. In October 2008, the Company signed development and commercialization agreements with ICM, Inc. (“ICM”).

Under the terms of the development agreement, the Company performed commercial-scale isobutanol production trials in ICM’s research plant and facility in St. Joseph, Missouri (the “Demonstration Plant”). The Company was required to pay for or reimburse ICM for engineering fees, equipment, plant modification costs, project fees and various operating expenses. In December 2011, the development agreement was amended to extend the term indefinitely. The development agreement, as amended, may be cancelled by either party with 30 days’ prior written notice. The Company did not incur any operating expenses or capital expenditures relating to the Demonstration Plant during the years ended December 31, 2014, 2013 or 2012.

The commercialization agreement, which was amended and restated in August 2011, is effective through October 2018, and outlines the terms and fees under which ICM acts as the Company’s exclusive provider of certain engineering and construction services. Also, under the commercialization agreement, the Company is ICM’s exclusive technology partner for the production of butanols, pentanols and propanols from the fermentation of sugars.

The Company has also engaged ICM to perform engineering studies, plant evaluations and other services. In August 2011, the Company entered into a work agreement with ICM whereby ICM will provide engineering, procurement and construction services for the retrofit of ethanol plants.

Joint Research, Development, License and Commercialization Agreement with The Coca-Cola Company. During November 2011, the Company entered into a joint research, development, license and commercialization agreement with The Coca-Cola Company (“Coca-Cola”). During the first two years of the agreement, Coca-Cola agreed to pay the Company a fixed price fee for a research program outlined in the agreement. The Company recognizes these fees as revenue over the performance period. The payments received are not refundable. The Company did not recognize revenue under this agreement during the year ended December 31, 2014 and the Company recognized $1.4 million and $1.2 million, respectively, during the years ended December 31, 2013 and 2012.

License Agreement

License Agreement with Cargill, Incorporated. During February 2009, the Company entered into a license agreement with Cargill, Incorporated (“Cargill”) to obtain certain biological materials and license patent rights to use a biocatalyst owned by Cargill. Under the license agreement, Cargill has granted the Company an exclusive, royalty-bearing license, with limited rights to sublicense, to use the patent rights in a certain field, as defined in the license agreement.

The license agreement contains five milestone payments totaling approximately $4.3 million that are payable by the Company after each milestone is completed. During 2009, two milestones were completed and the Company recorded the related milestone amounts, along with an up-front signing fee, totaling $0.9 million, to research and development expense. During March 2010, the Company completed milestone number three and recorded the related milestone amount of $2.0 million to research and development expense at its then-current present value of $1.6 million because the milestone payment was paid over a period greater than 12 months from the date that it was incurred. At December 2012, the Company had not completed milestone number four. However, under the terms of the agreement, the Company was entitled to pay a $0.5 million license fee in lieu of completing milestone number four. This fee was paid in March 2013 through the issuance of 250,000 shares of the Company's common stock to Cargill. Milestone number five included in the license agreement representing potential payments of up to $1.0 million, which is due by December 2015, has not been met as of December 31, 2014 and no amount has been recorded as a liability for this milestone.

Upon commercialization of a product which uses Cargill's biological material or is otherwise covered by the patent rights under the license agreement, a royalty based on net sales is payable by the Company, subject to a minimum royalty amount per year, as defined in the license agreement, and up to a maximum amount per year.

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Notes to Consolidated Financial Statements (Continued)

The license agreement provides an option for Cargill to purchase a nonexclusive, royalty-bearing license for the use of a Company biocatalyst that utilizes the Cargill biological material or licensed patents for a royalty rate equal to the lowest rate offered to any third party.

The Company may terminate the license agreement at any time upon 90 days' prior written notice. Unless terminated earlier, the license agreement remains in effect until the later of December 31, 2025 and the date that no licensed patent rights remain.

Other Significant Agreements

In June 2011, the Company announced that it had successfully produced fully renewable and recyclable polyethylene terephthalate ("PET") in cooperation with Toray Industries, Inc. ("Toray Industries"). Working directly with Toray Industries, the Company employed prototypes of commercial operations from the petrochemical and refining industries to make para-xylene from isobutanol. Toray Industries used the Company's bio-para-xylene ("bio-PX") and commercially available renewable mono ethylene glycol to produce fully renewable PET films and fibers. In June 2012, the Company entered into a definitive agreement with Toray Industries, as amended in October 2013, for the joint development of an integrated supply chain for the production of bio-PET. Pursuant to the terms of the agreement with Toray Industries, the Company received $1.0 million which was used by the Company for the design and construction of a demonstration plant. In May 2014, the Company successfully shipped the requisite volumes of bio-PX associated with its contract with Toray Industries and, as a result, the Company recognized the $1.0 million, as well as revenue associated with the sale of the bio-PX, as a component of hydrocarbon revenue in the second quarter of 2014. At December 31, 2013, the Company included the $1.0 million as deferred revenue, a component of accounts payable and accrued liabilities in its consolidated balance sheets.

In December 2011, the Company entered into a commercial off-take and marketing agreement with Land O'Lakes Purina Feed LLC ("Land O'Lakes Purina Feed") for the sale of iDGs™ produced by the Agri-Energy Facility. Land O' Lakes Purina Feed provides farmers and ranchers with an extensive line of agricultural supplies (feed, seed, and crop protection products) and services. Pursuant to the agreement, Land O'Lakes Purina Feed will be the exclusive marketer of the Company's iDGs™ and modified wet distiller's grains for the animal feed market. The agreement has an initial three-year term following the first commercial sales of iDGs™ with automatic one-year renewals thereafter unless terminated by one of the parties. Further, the Company's plans to work with Land O'Lakes Purina Feed to explore opportunities to upgrade the iDGs™ for special value-added applications in feed markets. No amounts have been incurred under this agreement as of December 31, 2014. Land O'Lakes Purina Fees also provides marketing services for the sale of the Company's ethanol distiller grains.

Within its research and development activities, the Company routinely enters into research and license agreements with various entities. Future royalty payments may apply under these license agreements if the technologies are used in future commercial products. In addition, the Company may from time to time make gifts to universities and other organizations to expand research activities in its fields of interest. Any amounts paid under these agreements are generally recorded as research and development expenses as incurred.

The Company has been awarded grants or cooperative agreements from a number of government agencies, including the U.S. Department of Energy, U.S. National Science Foundation, U.S. Environmental Protection Agency, U.S. Army Research Labs and the U.S. Department of Agriculture. Any recorded revenues related to these grants and cooperative agreements are recorded within grant and other revenue in the Company's consolidated statements of operations.

13. Gevo Development

Gevo, Inc. currently owns 100% of the outstanding equity interests of Gevo Development. Gevo Development has two classes of membership interests outstanding. Gevo, Inc. is the sole owner of the class A interests. Prior to September 2010, CDP, was the sole owner of the class B interests, which comprise 10% of the outstanding equity interests of Gevo Development. In September 2010, Gevo, Inc. became the sole owner of Gevo Development by acquiring 100% of the class B interests in Gevo Development from CDP pursuant to an equity purchase agreement. In exchange for the class B interests, CDP received aggregate consideration of $1.1 million.

The original issuance of the class B interests was considered to be a grant of non-employee stock-based compensation. As vesting of the awards was dependent on counterparty performance conditions (the acquisition and retrofit of a biorefinery plant), no compensation expense had been recorded prior to September 2010 because the lowest aggregate fair value of the awards was zero. Upon the purchase of the class B interests in September 2010, the Company recorded stock-based compensation of $0.8 million, which reflected the amount paid during 2010 for the class B interests that were not dependent on counterparty performance. The Company recorded stock compensation of $0.1 million during the year ended December 31, 2012.

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Gevo, Inc. made capital contributions to Gevo Development of $26.5 million, $29.6 million and $55.5 million, respectively, during the years ended December 31, 2014, 2013 and 2012.

The following table sets forth (in thousands) the net loss incurred by Gevo Development (including Agri-Energy after it was acquired in September 2010) which has been fully allocated to Gevo, Inc.'s capital contribution account based upon its capital contributions (for the period prior to September 2010) and 100% ownership (for the period after September 2010).

	Year Ended December 31,		
	2014	2013	2012
Gevo Development Net Loss	$(14,778)	$(19,243)	$(15,870)

In connection with the formation of Gevo Development in September 2009, the Company granted CDP a warrant to purchase 858,000 shares of the Company's common stock. The warrant has an exercise price of $2.70 per share which represented the estimated fair value of Gevo, Inc.'s common stock on the date of grant. The warrant expires in September 2016, unless terminated earlier as provided in the warrant agreement.

In September 2010, the beneficial owners of the equity interests of CDP became employees of Gevo, Inc. and the warrant agreement was amended and restated to provide that 50% of the warrant shares granted under such warrant agreement would vest in September 2010. The remaining warrant shares were to vest over a two-year period beginning in September 2010, subject to acceleration and termination in certain circumstances. The Company valued the warrant shares at $14.0 million. Effective March 23, 2012, the employment of the beneficial owners of CDP was terminated. Pursuant to the terms of the warrant agreement, all unvested warrant shares became immediately vested and, as such, the Company recorded $2.6 million of stock-based compensation expense during the year ended December 31, 2012.

Since its formation, Gevo Development has been and continues to be considered a variable interest entity. Gevo, Inc., the primary beneficiary of Gevo Development, has both (i) the power to direct the activities of Gevo Development that most significantly impact Gevo Development's economic performance and (ii) the obligation to absorb losses of Gevo Development that could potentially be significant to Gevo Development or the right to receive benefits from Gevo Development that could potentially be significant to Gevo Development. As such, Gevo Development is consolidated. The accounts of Agri-Energy are consolidated within Gevo Development as a wholly-owned subsidiary. As of December 31, 2014 and 2013, Gevo Development does not have any assets that can be used only to settle obligations of Gevo Development. In addition, as of December 31, 2014, under the terms of the Amended Agri-Energy Loan Agreement with TriplePoint, as amended, subject to certain limited exceptions, Agri-Energy is only permitted to pay if the following conditions are satisfied: (i) the Retrofit of the Agri-Energy Facility is complete and the facility is producing commercial volumes of isobutanol, (ii) its net worth is greater than or equal to $10.0 million, and (iii) no event of default has occurred and is continuing under the agreement. No gain or loss was recognized by the Company upon the initial consolidation of Gevo Development.

14. Redfield Energy, LLC

In June 2011, Gevo Development entered into an isobutanol joint venture agreement (the "Joint Venture Agreement") with Redfield Energy, LLC, a South Dakota limited liability company ("Redfield"), and executed the second amended and restated operating agreement of Redfield (together with the Joint Venture Agreement, the "Joint Venture Documents"). Under the terms of the Joint Venture Documents, Gevo Development and Redfield have agreed to work together to retrofit Redfield's approximately 50 million gallon per year ethanol production facility located near Redfield, South Dakota (the "Redfield Facility") for the commercial production of isobutanol. Under the terms of the Joint Venture Agreement, Redfield has issued 100 Class G membership units in Redfield (the "Class G Units") to Gevo Development. Gevo Development is the sole holder of Class G units, which entitle Gevo Development to certain information and governance rights with respect to Redfield, including the right to appoint two members of Redfield's 11-member board of managers. The Class G units currently carry no interest in the allocation of profits, losses or other distributions of Redfield and no voting rights. Such rights will vest upon the commencement of commercial isobutanol production at the Redfield Facility, at which time Gevo Development anticipates consolidating Redfield's operations because Gevo anticipates it will control the activities that are most significant to the entity.

Gevo Development will be responsible for all costs associated with the retrofit of the Redfield Facility. Redfield will remain responsible for certain expenses incurred by the facility including certain repair and maintenance expenses and any costs necessary to ensure that the facility is in compliance with applicable environmental laws. The Company anticipates that the Redfield Facility will continue its current ethanol production activities during much of the retrofit. Once the retrofit assets have been installed, the ethanol production operations will be suspended to enable testing of the isobutanol production capabilities of the facility (the "Performance

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Testing Phase"). During the Performance Testing Phase, Gevo Development will be entitled to receive all revenue generated by the Redfield Facility and will make payments to Redfield to cover the costs incurred by Redfield to operate the facility plus the profits, if any, that Redfield would have received if the facility had been producing ethanol during that period (the "Facility Payments"). Gevo Development has also agreed to maintain an escrow fund during the Performance Testing Phase as security for its obligation to make the Facility Payments.

If certain conditions are met, commercial production of isobutanol at the Redfield Facility will begin upon the earlier of the date upon which certain production targets have been met or the date upon which the parties mutually agree that commercial isobutanol production at the Redfield Facility will be commercially viable at the then-current production rate. At that time, (i) Gevo Development will have the right to appoint a total of four members of Redfield's 11-member board of managers, and (ii) the voting and economic interests of the Class G units will vest and Gevo Development, as the sole holder of the Class G Units, will be entitled to a percentage of Redfield's profits, losses and distributions, to be calculated based upon the demonstrated isobutanol production capabilities of the Redfield Facility.

Gevo Development, or one of its affiliates, will be the exclusive marketer of all products produced by the Redfield Facility once commercial production of isobutanol has begun. Additionally, Gevo, Inc. will license the technology necessary to produce isobutanol at the Redfield Facility to Redfield, subject to the continuation of the marketing arrangement described above. In the event that the isobutanol production technology fails or Redfield is permanently prohibited from using such technology, Gevo Development will forfeit the Class G Units and lose the value of its investment in Redfield.

Gevo, Inc. entered into a guaranty effective as of June 2011, pursuant to which it has unconditionally and irrevocably guaranteed the payment by Gevo Development of any and all amounts owed by Gevo Development pursuant to the terms and conditions of the Joint Venture Agreement and certain other agreements that Gevo Development and Redfield expect to enter into in connection with the retrofit of the Redfield Facility.

As of December 31, 2014, the Company has incurred $0.4 million in preliminary project engineering and permitting process costs for the future retrofit of the Redfield Facility which have been recorded on the Company's consolidated balance sheets in deposits and other assets. Gevo has no obligation to Retrofit the Redfield Facility.

15. Income Taxes

There is no provision for income taxes because the Company has incurred operating losses since inception. As of December 31, 2014, the Company had federal and state net operating loss carryforwards of approximately $289.9 million which may be used to offset future taxable income. The Company also had federal research and development tax credit carryforwards and other federal tax credit carryforwards which aggregate to $6.0 million at December 31, 2014. These carryforwards expire at various times through 2034 and may be limited in their annual usage by Section 382 of the Internal Revenue Code, as amended, relating to ownership changes.

The following table sets forth the tax effects of temporary differences that give rise to significant portions of the Company's net deferred tax assets (in thousands).

	December 31, 2014	2013
Deferred tax assets:		
Net operating loss carryforwards	$115,870	$96,748
Research and other credits	6,047	5,502
Other temporary differences	(2,478)	2,768
Deferred tax assets - before valuation allowance	119,439	105,018
Valuation allowance	(119,439)	(105,018)
Net deferred tax assets - after valuation allowance	$-	$-

The Company's deferred tax assets represent an unrecognized future tax benefit. The Company recognizes uncertain tax positions net, against any operating losses or applicable research credits as they arise. Currently, there are no uncertain tax positions recognized at December 31, 2014. The Company has provided a full valuation allowance on its deferred tax assets at December 31, 2014 and 2013, as management believes it is more likely than not that the related deferred tax asset will not be realized. The reported amount of income tax expense differs from the amount that would result from applying domestic federal statutory tax rates to pretax losses, primarily because of changes in the valuation allowance.

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The following table sets forth reconciling items from income tax computed at the statutory federal rate.

	Year Ended December 31,		
	2014	2013	2012
Federal income tax at statutory rate	35.0 %	35.0 %	35.0 %
State income taxes, net of federal benefits	4.5 %	5.7 %	6.2 %
Research and other credits	-1.3 %	-2.2 %	0.0 %
Permanent deductions	-2.2 %	-1.5 %	-2.5 %
Valuation allowance	-36.0 %	-37.0 %	-38.7 %
Effective tax rate	0.0 %	0.0 %	0.0 %

Accounting literature regarding liabilities for unrecognized tax benefits provides guidance for the recognition and measurement in financial statements of uncertain tax positions taken or expected to be taken in a tax return. The Company has concluded that there are no significant uncertain tax positions requiring recognition in the consolidated financial statements. The Company's evaluation was performed for the tax periods from inception to December 31, 2014, which remain subject to examination by major tax jurisdictions as of December 31, 2014.

The Company may from time to time be assessed interest or penalties by major tax jurisdictions, although there have been no such assessments historically, with any material impact to its financial results. The Company would recognize interest and penalties related to unrecognized tax benefits within the income tax expense line in the accompanying Consolidated Statements of Operations. Accrued interest and penalties would be included within the related tax liability line in the Consolidated Balance Sheets.

16. Employee Benefit Plan

The Company's employees participate in the Gevo, Inc. 401(k) Plan (the "401(k) Plan"). Subject to certain eligibility requirements, the 401(k) Plan covers substantially all employees after three months of service with quarterly entry dates. Employee contributions are deposited by the Company into the 401(k) Plan and may not exceed the maximum statutory contribution amount. The Company may make matching and/or discretionary contributions to the 401(k) Plan. Effective January 2008, the Company began providing an employer match of 100% up to a maximum of 5% of compensation per employee, which vested over a period of approximately two years. Effective January 2013, the Company elected to cease providing an employer match. During the year ended December 31, 2012, the Company recorded $0.5 million in matching contributions.

17. Commitments and Contingencies

Legal Matters. On January 14, 2011, Butamax filed a complaint (the “Complaint”) against the Company in the United States District Court for the District of Delaware (“Delaware District Court”), as Case No. 1:11-cv-00054-SLR, alleging that the Company is infringing one or more claims made in U.S. Patent No. 7,851,188 (the “’188 Patent”), entitled “Fermentive Production of Four Carbon Alcohols.” The ’188 Patent, which has been assigned to Butamax, claims certain recombinant microbial host cells that produce isobutanol and methods for the production of isobutanol using such host cells. Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses. On March 25, 2011, the Company filed a response to the Complaint, denying Butamax’s allegations of infringement and raising affirmative defenses.

On August 11, 2011, Butamax amended the Complaint to include allegations that the Company is infringing one or more claims made in U.S. Patent No. 7,993,889 (the “’889 Patent”), also entitled “Fermentive Production of Four Carbon Alcohols” (the “Amended Complaint”). The ’889 Patent, which has been assigned to Butamax, claims methods for producing isobutanol using certain recombinant yeast microorganisms expressing an engineered isobutanol biosynthetic pathway. The Company believes that the Amended Complaint is without merit and will continue to aggressively defend its intellectual property rights.

On September 13, 2011, the Company filed an answer to the Amended Complaint in which it asserted counterclaims against Butamax and DuPont for infringement of U.S. Patent No. 8,017,375 (the “’375 Patent”), entitled “Yeast Organism Producing Isobutanol at a High Yield” and U.S. Patent No. 8,017,376 (the “’376 Patent”), entitled “Methods of Increasing Dihydroxy Acid Dehydratase Activity to Improve Production of Fuels, Chemicals, and Amino Acids.” The counterclaims sought a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses. These counterclaims were set for trial in August 2013. On July 26, 2013, the Delaware District Court issued an order regarding claim construction and summary judgment of the Company’s counterclaims involving the ’375 and ’376 Patents. Both parties had asked the Delaware District Court to resolve certain issues regarding the ’375 and ’376 Patents without a trial by seeking summary judgment from the Delaware District Court.

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Butamax had filed motions seeking summary judgment that it did not infringe such patents and the Delaware District Court granted Butamax's motions on this issue. Butamax had also moved for summary judgment of invalidity on both patents. The Delaware District Court granted Butamax's motion of invalidity on the '375 Patent, but denied Butamax's motion of invalidity on the '376 Patent. On August 8, 2013, an order was issued by the Delaware District Court which entered a final judgment of non-infringement in favor of Butamax and DuPont with respect to the claims of the '375 and '376 Patents. The August 8, 2013 order also entered a final judgment of invalidity in favor of Butamax and DuPont with respect to the claims of the '375 Patent. In addition, it was further ordered that the Butamax and DuPont claims and counterclaims relating to the unenforceability of the '375 Patent, and the invalidity and/or unenforceability of the '376 Patent, would be dismissed without prejudice, and that the Butamax and DuPont claims for exceptional case, attorney's fees and/or costs would be preserved for later presentation to the Delaware District Court. As a result of the August 8, 2013 order, a trial did not occur on August 12, 2013 as previously scheduled. On August 26, 2014, Butamax and DuPont's claims for exceptional case, attorney's fees and/or costs were denied.

On September 22, 2011, Butamax filed a motion for preliminary injunction with respect to the alleged infringement by the Company of one or more claims made in the '889 Patent.

On January 24, 2012, the Company filed a complaint in the Delaware District Court, as Case No. 1:12-cv-00070-SLR, alleging that Butamax and DuPont are infringing one or more claims made in U.S. Patent No. 8,101,808 (the "'808 Patent") entitled "Recovery of Higher Alcohols from Dilute Aqueous Solutions." The '808 Patent claims methods to produce a C3-C6 alcohol—for example, isobutanol—through fermentation and to recover that alcohol from the fermentation medium. The Company sought a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses. On May 8, 2013, the Company stipulated and agreed to dismiss without prejudice the '808 Patent suit against Butamax, DuPont, or their affiliates, with each side bearing its own costs and fees in the action. The Company further stipulated and agreed with Butamax that the Company shall not re-assert the '808 Patent against Butamax, DuPont, or their respective affiliates until a final Certificate of Reexamination is received from the U.S. Patent and Trademark Office ("USPTO") in Inter Partes Reexamination Control No. 95/000,666.

On March 12, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-00298-SLR, alleging that the Company is infringing one or more claims made in U.S. Patent No. 8,129,162, entitled "Ketol-Acid Reductoisomerase Using NADH." This complaint is in addition to the Amended Complaint discussed above. Butamax is seeking a declaratory judgment, injunctive relief, damages, interest, costs and expenses, including attorney's fees. The Company believes that it has meritorious defenses to these allegations and intends to vigorously defend this lawsuit. This case is scheduled for trial on April 25, 2016.

On March 13, 2012, the Company filed a complaint in the Delaware District Court, as Case No. 1:12-cv-00301-SLR, alleging that Butamax and DuPont are infringing U.S. Patent No. 8,133,715 (the "'715 Patent"), entitled "Reduced By-Product Accumulation for Improved Production of Isobutanol." The '715 Patent claims recombinant microorganisms, including yeast, with modifications for the improved production of isobutanol. The Company is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses.

On April 10, 2012, the Company filed a complaint (the "Gevo Complaint") in the Delaware District Court, as Case No. 1:12-cv-00448-SLR, alleging that Butamax and DuPont are infringing one or more claims made in U.S. Patent No. 8,153,415 (the "'415 Patent") entitled "Reduced By-Product Accumulation for Improved Production of Isobutanol." The '415 Patent claims technology which eliminates two pathways that compete for isobutanol pathway intermediates in yeast. The Company is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses.

On April 17, 2012, the Company amended the Gevo Complaint to include allegations that Butamax and DuPont are infringing one or more claims made in U.S. Patent No. 8,158,404 (the "'404 Patent") entitled "Reduced By-Product Accumulation for Improved Production of Isobutanol." The '404 Patent claims the reduction or elimination of important enzymes in a pathway in isobutanol- producing yeast. The Company is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses.

On May 9, 2012, coordinated discovery was ordered for Case Nos. 1:12-cv-00070-SLR, 1:12-cv-00298-SLR, 1:12-cv-00301-SLR, and 1:12-cv-00448-SLR. By virtue of the same order, discovery in Case No. 1:12-cv-00602-SLR was also coordinated with these cases.

On May 15, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-00602-SLR, alleging that the Company is infringing one or more claims made in U.S. Patent No. 8,178,328, entitled "Fermentive Production of Four Carbon Alcohols." Butamax is seeking a declaratory judgment, injunctive relief, damages, interest, costs and expenses, including attorney's

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fees. The Company believes that it has meritorious defenses to these allegations and intends to vigorously defend this lawsuit. This case is scheduled for trial on April 25, 2016.

On June 19, 2012, the Delaware District Court denied the motion for preliminary injunction which was filed by Butamax on September 22, 2011 with respect to the alleged infringement by the Company of one or more claims made in the ’889 Patent. As is normal and customary in patent infringement actions of this nature, Butamax then filed a notice of appeal. In connection with its appeal, Butamax also filed a motion with the Delaware District Court seeking a temporary order to limit the Company’s activities with respect to the automotive fuel blending market while Butamax appealed the denial of its motion for preliminary injunction.

On July 6, 2012, the Delaware District Court issued a temporary order which stated, in part, that the Company could not deliver, provide, distribute, ship, release or transfer in any way bio-isobutanol produced at the Agri-Energy Facility to any third party for any use or purpose related to the automotive fuel blending market while Butamax appealed the denial of its motion for preliminary injunction. The Company filed an appeal of the temporary order. Under the temporary order, the Company remained free to operate in markets such as chemicals, jet fuel, marine fuel and small engine fuel. On August 10, 2012, the Federal Circuit Court of Appeals granted the Company’s motion to stay the status quo order entered on July 6, 2012 by the Delaware District Court. On November 16, 2012, the Federal Circuit Court of Appeals affirmed the Delaware District Court’s denial of Butamax’s preliminary injunction motion.

On July 31, 2012, the Company filed a complaint in the United States District Court for the Eastern District of Texas, as Case No. 2:12-cv-00417, alleging that Butamax, DuPont, BP, BP Corporation North America Inc. and BP Biofuels North America LLC are infringing U.S. Patent No. 8,232,089 (the “’089 Patent), entitled “Cytosolic Isobutanol Pathway Localization for the Production of Isobutanol.” The Company is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses. On December 17, 2012, this case was transferred to the Delaware District Court as Case No. 1:12-cv-01724-SLR. On February 19, 2013, BP filed a motion seeking to dismiss the Company’s complaint for failure to state a claim against it. On March 8, 2013, the Company filed a response in opposition to BP’s motion. On March 18, 2013, BP filed its reply brief, and the issue was submitted to the court for decision. On July 8, 2013, the court granted BP’s motion. Despite the court’s decision, Butamax, DuPont, BP Corporation North America Inc. and BP Biofuels North America LLC remain defendants in the suit.

On July 31, 2012, Butamax and DuPont filed a lawsuit in the Delaware District Court for declaratory judgment against the Company, as Case No. 1:12-cv-00999-SLR, seeking a judicial determination that the ’089 Patent is invalid and that Butamax and DuPont do not infringe it. On January 28, 2013, this case was closed following a voluntary stipulation of dismissal filed by both parties.

On August 6, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-01014-SLR, alleging that the Company is infringing U.S. Patent No. 8,222,017, entitled “Ketol-Acid Reductoisomerase Using NADH.” Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses. This case is scheduled for trial on April 25, 2016. On January 22, 2013, discovery in this case was consolidated with Case Nos. 1:12-cv-00070-SLR, 1:12-cv-00298-SLR, 1:12-cv-00301-SLR, 1:12-cv-00448-SLR, and 1:12-cv-00602-SLR. In December 2013, Gevo withdrew claims of infringement against Butamax in Case Nos. 1:12-cv-00301-SLR, and 1:12-cv-00448-SLR. Despite the withdrawal of the infringement claims by Gevo against Butamax in Case Nos. 1:12-cv-00301-SLR and 1:12-cv-00448-SLR, Butamax continues to pursue counterclaims of invalidity in these cases.

On August 14, 2012, the Company filed a lawsuit in the United States District Court for the Eastern District of Texas for declaratory judgment against Butamax, DuPont, BP, BP Corporation North America Inc. and BP Biofuels North America LLC, as Case No. 2:12-cv-00435, seeking a judicial determination that a recently issued Butamax U.S. Patent No. 8,241,878 (the "'878 Patent"), entitled "Recombinant Yeast Host Cell with Fe-S Cluster Proteins and Methods of Using Thereof" is invalid and that the Company does not infringe it. On December 17, 2012, this case was transferred to the Delaware District Court as Case No. 1:12-cv-01725-SLR. On January 28, 2013, this case was closed following a voluntary stipulation of dismissal filed by both parties.

On August 14, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-01036-SLR, alleging that the Company is infringing the '878 Patent. Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses. This case is scheduled for trial on August 24, 2015.

On September 25, 2012, the Company filed a complaint in the Delaware District Court, as Case No. 1:12-cv-01202-SLR, alleging that Butamax and DuPont are infringing U.S. Patent No. 8,273,565 (the "'565 Patent"), entitled "Methods of Increasing Dihydroxy Acid Dehydratase Activity to Improve Production of Fuels, Chemicals, and Amino Acids." The Company is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney's fees and expenses. On September 25, 2012, Butamax and DuPont filed a lawsuit in the Delaware District Court for declaratory judgment against the Company, as Case No. 1:12-cv-01201-SLR, seeking a judicial determination that the '565 Patent is invalid and that Butamax and DuPont do not infringe it. On August 9,

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2013, Case Nos. 1:12-cv-01202-SLR and 1:12-cv-01201-SLR were closed following a voluntary stipulation of dismissal filed by both parties.

On September 25, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-01200-SLR, alleging that the Company is infringing U.S. Patent No. 8,273,558, entitled “Fermentive Production of Four Carbon Alcohols.” Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses. This case is scheduled for trial on August 24, 2015.

On October 8, 2012, Butamax filed a complaint in the Delaware District Court, as Case No. 1:12-cv-01300-SLR, alleging that the Company is infringing U.S. Patent No. 8,283,144, entitled “Fermentive Production of Four Carbon Alcohols.” Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney’s fees and expenses. This case is scheduled for trial on August 24, 2015.

On October 8, 2012, Butamax filed a lawsuit in the Delaware District Court for declaratory judgment against the Company, as Case No. 1:12-cv-01301-SLR, seeking a judicial determination that Butamax is not infringing the Company’s U.S. Patent No. 8,283,505, entitled “Recovery of Higher Alcohols from Dilute Aqueous Solutions.” On January 28, 2014 the Delaware District Court issued an order dismissing Case No. 1:12-cv-01301-SLR.

On February 13, 2013, coordinated discovery was ordered for Case Nos. 1:12-cv-01036-SLR, 1:12-cv-01200-SLR, 1:12-cv-01201-SLR, 1:12-cv-01202-SLR, 1:12-cv-01300-SLR, 1:12-cv-01301-SLR, and 1:12-cv-01724-SLR. Case Nos. 1:12-cv-01036-SLR, 1:12-cv-01200-SLR and 1:12-cv-01300-SLR are currently set for trial on August 24, 2015.

On March 19, 2013, the Delaware District Court issued an order regarding claim construction and summary judgment in the patent suit involving the ’188 Patent and the ’889 Patent. Both parties had asked the Delaware District Court to resolve certain issues regarding the ’188 Patent and the ’889 Patent without a trial by seeking summary judgment from the court. Butamax had filed a motion seeking summary judgment that the Company infringed such patents, but the Delaware District Court denied Butamax’s motion. The Company moved for summary judgment of noninfringement, both as a matter of literal infringement and infringement under the doctrine of equivalents, and the Delaware District Court granted the Company’s motion regarding doctrine of equivalents infringement. The Company also moved for summary judgment of invalidity of various claims in the ’188 Patent and the ’889 Patent. The Delaware District Court granted this motion in part, ruling that Butamax’s claims related to the inactivation of competing pathways for carbon flow were invalid.

The Delaware District Court also provided certain claim construction rulings, including a ruling that Butamax’s patent claims were limited to an “acetohydroxy acid isomeroreductase” enzyme that is “NADPH-dependent.” The remaining issues were to be resolved by a jury trial, scheduled to commence on April 1, 2013.

On March 20, 2013, the Delaware District Court held the final pre-trial hearing leading up to the trial on the ’188 Patent and the ’889 Patent scheduled to commence April 1, 2013. During the hearing, Butamax’s attorney acknowledged that the Company does not infringe such patents under the Delaware District Court’s construction of a key claim term in such patents, “acetohydroxy acid isomeroreductase.” Butamax offered to stipulate to no literal infringement under the Delaware District Court’s construction. In view of this stipulation and the Delaware District Court’s prior ruling of no infringement under Butamax’s alternative infringement theory, the doctrine of equivalents, on April 10, 2013 a judgment of no infringement was entered in favor of the Company.

On April 19, 2013, Butamax filed a notice of appeal with the U.S. Court of Appeals for the Federal Circuit to appeal the Delaware District Court’s Memorandum and Order of March 19, 2013, and the Delaware District Court’s Amended Final Judgment of April 10, 2013. Oral arguments for the Butamax appeal were heard by the U.S. Court of Appeals for the Federal Circuit on November 7, 2013.

On February 18, 2014, the U.S. Court of Appeals for the Federal Circuit vacated the Delaware District Court’s denial of Butamax’s motion for summary judgment of literal infringement of the asserted claims of the ’188 Patent and the ’889 Patent and remanded the question of infringement to the Delaware District Court for reconsideration under a revised claim construction. The U.S. Court of Appeals for the Federal Circuit also vacated and remanded the Delaware District Court’s grant of the Company’s motion for summary judgment of noninfringement under the doctrine of equivalents. The U.S. Court of Appeals for the Federal Circuit also reversed the Delaware District Court’s grant of the Company’s motion for summary judgment of invalidity for lack of a written description of claims 12 and 13 of the ’889 Patent and the Delaware District Court’s order that those same claims are invalid for lack of enablement. The remanded trial for the ’188 and ’889 patents in the Delaware District Court was scheduled to be held on July 21, 2014. On April 22, 2014, the Company filed a Petition for Writ of Certiorari with the U.S. Supreme Court to appeal the decision of the U.S. Court of Appeals for the Federal Circuit. On April 25, 2014, the Company filed a motion to stay the Delaware District Court’s

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July 21, 2014 trial pending the disposition of its Petition for Writ of Certiorari with the U.S. Supreme Court and any follow-on proceedings.

On July 11, 2014, the Delaware District Court granted the Company's motion to stay the patent litigation on the '188 Patent and '889 Patent. The District Court's decision postpones the trial in this action, which was scheduled to begin on July 21, 2014. The decision by the Delaware District Court was based on the status of our Petition for Writ of Certiorari with the U.S. Supreme Court. It appeared that the U.S. Supreme Court was holding the petition pending its decision in Teya Pharmaceuticals USA, Inc. v. Sandoz, Inc. (the "Teva Case"), a case with the potential to change the Federal Circuit's standard of review of district court claim construction and ultimately negate jury verdicts obtained under the then-current interpretation of patent claims. Oral Argument in the Teva Case occurred on October 15, 2014 and on January 20, 2015, the U.S. Supreme Court ruled in Teva's favor and determined that the Federal Circuit must now apply the "clear error" standard of review and cannot set aside District Courts' findings of fact unless they were clearly erroneous. On January 26, 2015, the Supreme Court ruled in Gevo's favor, vacated an earlier Federal Circuit Court ruling on the interpretation of key Butamax patent claims and remanded the case back to the Federal Circuit Court for consideration in light of the new "clear error" standard of appellate review that was decided in the Teva Case."

On February 18, 2014, the Delaware District Court granted Gevo's motion to stay the litigation regarding Gevo's '715 Patent, '404 Patent and '415 Patent pending the USPTO's issuance of a Right to Appeal Notice during inter partes re-examination of those patents.

Due to the nature and stage of this litigation, the Company has determined that the possible loss or range of loss related to this litigation cannot be reasonably estimated at this time. The next Delaware District Court trial for the Butamax litigation is currently scheduled for August 24, 2015 and an additional trial is scheduled for April 25, 2016. The Company expects to continue to incur significant costs related to its involvement in the foregoing legal proceedings.

Leases. During the year ended December 31, 2012, the Company entered into a six year software license agreement. The Company concluded that the software license agreement qualifies as a capital lease. Accordingly, at December 31, 2014, the Company has capital lease liabilities of $0.1 million and $0.3 million included in accounts payable and accrued liabilities and other long-term liabilities, respectively on its consolidated balance sheets. At December 31, 2013, the Company has capital lease liabilities of $0.1 million and $0.4 million included in accounts payable and accrued liabilities and other long-term liabilities, respectively on its consolidated balance sheets.

The Company has an operating lease for its office, research, and production facility in Englewood, Colorado (the "Colorado Facility") with a term expiring in July 2016. The Company also maintains a corporate apartment in Colorado, which has a lease term expiring during the next 12 months.

Rent expense for the years ended December 31, 2014, 2013 and 2012 was $0.5 million, $0.6 million and $0.6 million, respectively. The Company recognizes rent expense on its operating leases on a straight-line basis.

The table below shows the future minimum payments under non-cancelable operating leases and capital leases at December 31, 2014 (in thousands).

	Operating Leases	Capital Lease	Total Lease Payments
2015	$ 1,826	$ 157	$ 1,983
2016	1,308	162	1,470
2017	1,044	167	1,211
2018	1,044	-	1,044
2019 and thereafter	529	-	529
Total	$ 5,751	$ 486	$ 6,237

Indemnifications. In the ordinary course of its business, the Company makes certain indemnities under which it may be required to make payments in relation to certain transactions. As of December 31, 2014 and 2013, the Company did not have any liabilities associated with indemnities.

In addition, the Company, as permitted under Delaware law and in accordance with its amended and restated certificate of incorporation and amended and restated bylaws, indemnifies its officers and directors for certain events or occurrences, subject to certain limits, while the officer or director is or was serving at the Company's request in such capacity. The duration of these indemnifications, commitments, and guarantees varies and, in certain cases, is indefinite. The maximum amount of potential future

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indemnification is unlimited; however, the Company has a director and officer insurance policy that may enable it to recover a portion of any future amounts paid. The Company accrues for losses for any known contingent liability, including those that may arise from indemnification provisions, when future payment is probable. No such losses have been recorded to date.

Environmental Liabilities. The Company's operations are subject to environmental laws and regulations adopted by various governmental authorities in the jurisdictions in which it operates. These laws require the Company to investigate and remediate the effects of the release or disposal of materials at its locations. Accordingly, the Company has adopted policies, practices and procedures in the areas of pollution control, occupational health and the production, handling, storage and use of hazardous materials to prevent material environmental or other damage, and to limit the financial liability which could result from such events. Environmental liabilities are recorded when the Company's liability is probable and the costs can be reasonably estimated. No environmental liabilities have been recorded as of December 31, 2014.

18. Fair Value Measurements and Fair Value of Financial Instruments

Accounting standards define fair value, outline a framework for measuring fair value, and detail the required disclosures about fair value measurements. Under these standards, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or most advantageous market. Standards establish a hierarchy in determining the fair market value of an asset or liability. The fair value hierarchy has three levels of inputs, both observable and unobservable. Standards require the utilization of the highest possible level of input to determine fair value.

Level 1 – inputs include quoted market prices in an active market for identical assets or liabilities.
Level 2 – inputs are market data, other than Level 1, that are observable either directly or indirectly. Level 2 inputs include quoted market prices for similar assets or liabilities, quoted market prices in an inactive market, and other observable information that can be corroborated by market data.
Level 3 – inputs are unobservable and corroborated by little or no market data.

While the Company believes that its valuation methods, as set forth below, are appropriate and consistent with other market participants, it recognizes that the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

Inventories. The Company records its inventory, primarily corn inventory, at fair value only when the Company's cost of corn purchased exceeds the market value for corn. The Company determines the market value of corn based upon Level 1 inputs using quoted market prices. During the years ended December 31, 2014, 2013 and 2012, the Company recognized \$0.1 million, \$0.8 million and \$0.3 million, respectively, in write-downs of its corn inventory to market prices.

Derivative Assets and Liabilities. The fair value of exchange-traded derivative instruments held is based on Level 1 inputs using quoted market prices. The Company did not have any exchange-traded derivative instruments at December 31, 2014 or 2013.

Secured Debt. The Company has estimated the fair value of its secured debt obligations based upon discounted cash flows with Level 3 inputs, such as the terms that management believes would currently be available to the Company for similar issues of debt, taking into account the current credit risk of the Company and other market factors. In May 2014, the Company entered into an amended agreement with Triplepoint in which the loans outstanding were settled in exchange for a new loan with a May 2017 maturity date for $1.0 million which amortizes over 36 months and bears interest at a rate equal to 9% per annum. The Company has determined that the estimated fair value approximates book value as of December 31, 2014.

The following table sets forth the principal balance of the Company's secured debt obligation and the associated estimated fair value at December 31, 2014 and 2013 (in thousands).

	2014		2013	
Issuance	Principal Balance	Estimated Fair Value	Principal Balance	Estimated Fair Value
TriplePoint - May 2014 Advance	$822	$ 773	$-	$ -
TriplePoint - January 2012 Advance	-	-	3,495	3,079
TriplePoint - October 2011 Advance	-	-	6,657	5,942
TriplePoint - September 2010 Advance	-	-	917	847

2017 Notes. The Company has estimated the fair value of the 2017 Notes, to be $25.5 million at December 31, 2014 based upon Level 2 inputs, including the market price of the Company's common stock. The Company has valued the 2017 Notes and all of its components using the fair value option. See Note 8 for the fair value inputs used to estimate the fair value of the 2017 Notes. On the date of issuance in May 2014, the 2017 Notes were a term loan and recorded at fair value at that date.

2022 Notes Embedded Derivative. The Company has estimated the fair value of the 2022 Notes, including the embedded derivative, to be $19.4 million and $15.9 million at December 31, 2014 and 2013, respectively, based upon Level 2 inputs, including the market price of the 2022 Notes derived from actual trades of the 2022 Notes. The Company had estimated the fair value of the embedded derivative on a stand-alone basis to be $0.0 million and $3.5 million at December 31, 2014 and 2013, respectively, based upon Level 2 inputs. See Note 6 for the fair value inputs used to estimate the fair value of the 2022 Notes with and without the embedded derivative and the fair value of the embedded derivative.

Derivative Warrant Liability. In December 2013, the Company issued the 2013 Warrants to purchase 21,303,750 shares of the Company's common stock. Based on the terms of the 2013 Warrants, the Company determined the 2013 Warrants qualified as a derivative and, as such, are presented as a derivative warrant liability on the consolidated balance sheets and recorded at fair value each reporting period. The Company determined the estimated fair value of the 2013 Warrants as of December 31, 2013 to be $7.2 million based upon Level 1 inputs, the quoted market prices of the 2013 Warrants on such date. The Company valued the 2013 Warrants on the date of issuance based upon Level 2 observable market prices, using the "with-and-without method," where the value of the common stock including the 2013 Warrants is defined as the "with," and the value of the common stock excluding the 2013 Warrants as traded on the NASDAQ market is defined as the "without." This method estimates the value of the 2013 Warrants by looking at the difference in the values between the common stock with the 2013 Warrants and the value of the common stock without the 2013 Warrants. Based upon this method, the Company estimated the value of the 2013 Warrants to be $4.0 million on the date of issuance. The Company determined the estimated fair value of the 2013 Warrants as of December 31, 2014 to be $1.4 million based upon Level 2 inputs utilizing an analysis of actual historical market trades of the 2013 Warrants and a Black Scholes model. The Company relied on Level 2 inputs for estimating the fair value of the 2013 Warrants as of December 31, 2014 due to the lack of market trades of the 2013 Warrants on such date.

In August of 2014, the Company issued 2014 Warrants to purchase 15,000,000 shares of the Company's common stock. Based on the terms of the 2014 Warrants, the Company determined the 2014 Warrants qualify as a derivative and, as such, are presented as a derivative warrant liability on the consolidated balance sheets and recorded at fair value each reporting period. The Company determined the estimated fair value of the 2014 Warrants as of December 31, 2014 to be $1.7 million based upon Level 2 inputs utilizing an analysis of actual historical market trades of the 2014 Warrants. The Company relied on Level 2 inputs for estimating the fair value of the 2014 Warrants as of December 31, 2014 due to the lack of market trades of the 2014 Warrants on such date.

19. Segments

The Company's chief operating decision maker is provided with and reviews the financial results of each of the Company's consolidated legal entities, Gevo, Inc., Gevo Development, LLC, and Agri-Energy, LLC. The Company organizes its business segments based on the nature of the products and services offered through each of its consolidated legal entities. All revenue is earned, and all assets are held, in the U.S.

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The following table sets forth our financial results by segment (in thousands).

	Year Ended December 31,		
	2014	2013	2012
Revenues:			
Gevo	$4,718	$4,822	$3,505
Gevo Development / Agri-Energy	23,548	3,402	20,880
Consolidated	$28,266	$8,224	$24,385
Loss from operations:			
Gevo	$(26,567)	$(39,745)	$(58,837)
Gevo Development / Agri-Energy	(13,210)	(15,770)	(12,600)
Consolidated	$(39,777)	$(55,515)	$(71,437)
Interest expense:			
Gevo	$10,446	$5,815	$3,051
Gevo Development / Agri-Energy	1,578	3,486	3,287
Consolidated	$12,024	$9,301	$6,338
Depreciation expense:			
Gevo	$937	$1,160	$1,200
Gevo Development / Agri-Energy	3,943	2,233	2,113
Consolidated	$4,880	$3,393	$3,313
Acquisitions of plant, property and equipment:			
Gevo	$116	$591	$2,204
Gevo Development / Agri-Energy	4,778	9,215	50,228
Consolidated	$4,894	$9,806	$52,432

	December 31,	
	2014	2013
Total assets:		
Gevo	$95,680	$100,888
Gevo Development / Agri-Energy	49,961	65,281
Intercompany eliminations	(46,713)	(49,814)
Consolidated	$98,928	$116,355

20. Subsequent Events

Public Offering of Common Stock and Warrants

On February 3, 2015, the Company closed the sale of 33,250,000 common stock units. Each common stock unit consists of one share of common stock, a Series A warrant to purchase one share of common stock and a Series B warrant to purchase one share of common stock at a public offering price of $0.20 per common stock unit. The Series A warrants have an exercise price of $0.27 per share, are exercisable from the date of original issuance and will expire on February 3, 2020. The Series B warrants have an exercise price of $0.20 per share, are exercisable from the date of original issuance and will expire on August 3, 2015. The shares of common stock and the warrants are separable and were issued separately. The gross proceeds are approximately $6.7 million not including any future proceeds from the exercise of the warrants.

Transfer of Common Stock Listing to the NASDAQ Capital Market

On June 30, 2014, the Company received a deficiency letter from the Listing Qualifications Department of The NASDAQ Stock Market, notifying it that, for the prior 30 consecutive business days, the closing bid price of the Company's common stock was not maintained at the minimum required closing bid price of at least $1.00 per share as required for continued listing on the NASDAQ

Global Market. As part of the Company’s efforts to regain compliance with this requirement, the listing of the Company’s common stock was transferred from the NASDAQ Global Market to the NASDAQ Capital Market effective January 5, 2015. The transfer of the listing of the Company’s common stock to the NASDAQ Capital Market is not expected to have any impact on the trading in its common stock, and its common stock continues to trade under the symbol “GEVO.”

By transferring its common stock listing from the NASDAQ Global Market to the NASDAQ Capital Market, the Company received an additional 180 calendar day compliance period, or until June 29, 2015, to regain compliance with the minimum $1.00 per share requirement for continued listing on the NASDAQ Capital Market. The Company intends to monitor the bid price of its common stock and its minimum market value of listed securities and will consider options available to it to achieve compliance, including potentially implementing a reverse stock split of the outstanding shares of the Company’s common stock.

Filing of a Preliminary Proxy to Call a Special Meeting of Stockholders

On February 23, 2015, the Company filed a preliminary proxy to call a special meeting (the “Special Meeting”) of stockholders of Gevo, Inc., to be held on Monday, April 13, 2015, at the Company’s offices in Englewood, Colorado. The Special Meeting will be held to approve an amendment to the Company’s Amended and Restated Certificate of Incorporation to effect a reverse stock split of the outstanding shares of the Company’s common stock, by a ratio of not less than one-for-ten and not more than one-for-thirty at any time on or prior to June 27, 2015, with the exact ratio to be set at a whole number within this range by the Board of Directors of the Company in its sole discretion.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

Item 9A. Controls and Procedures

Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

We maintain disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act that are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required financial disclosures.

As of the end of the period covered by this Report, we conducted an evaluation, under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Exchange Act Rules 13a-15(b) and 15d-15(b). Based on this evaluation, our principal executive officer and principal financial officer concluded that our disclosure controls and procedures were not effective as of December 31, 2014, because of a material weakness in accounting for certain non-routine aspects of the underwritten public offering completed in August 2014 (the “August Offering”) as described below. Notwithstanding this material weakness, management has concluded that the consolidated financial statements included in this Report present fairly, in all material respects, the financial position, results of operations and cash flows of the Company in accordance with GAAP.

Management’s Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework set forth in Internal Control—Integrated Framework (1992 framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework in Internal Control—Integrated Framework, our management concluded that our internal control over financial reporting was not effective as of December 31, 2014, because of a material weakness in accounting for certain non-routine aspects of the August Offering as described below.

In connection with the preparation of the interim financial statements for the third quarter ended September 30, 2014, management identified the following material weakness in internal control over financial reporting: The Company's internal controls over financial reporting were not effective to ensure that the accounting for the offering costs and common stock warrants related to the August Offering was accurate. Specifically, the Company did not maintain effective controls over the review and analysis of supporting working papers for the August Offering. As a result, these balances required adjustments to be recorded in accordance with GAAP. All such adjustments are reflected in the consolidated financial statements included in this Report and these adjustments did not affect any prior reporting periods.

Management is currently addressing this material weakness in internal control over financial reporting and is committed to remediating it as expeditiously as possible. We are implementing enhanced controls and policies with respect to the review and analysis of all working papers of non-routine transactions such as the August Offering. Management believes that there are no material inaccuracies or omissions of material fact in the Company's financial statements and, to the best of its knowledge, believes that the consolidated financial statements for year ended December 31, 2014 fairly present in all material respects the Company's financial position results of operations and cash flows in accordance with GAAP.

Changes in Internal Control Over Financial Reporting

Except as set forth above, there have been no changes in our internal control over financial reporting during the fourth quarter of 2014 that have or are reasonably likely to materially affect our internal control over financial reporting identified in connection with the previously mentioned evaluation.

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

For information relating to our executive officers and directors, please see the section entitled "Business – Executive Officers and Directors of the Registrant" in Part I, Item 1 of this Report.

General

This section describes key corporate governance guidelines and practices that we have adopted. Complete copies of our Corporate Governance Guidelines, the charters of the committees of our Board and our Code of Business Conduct and Ethics described below may be viewed on our website at http://ir.gevo.com under the heading "Corporate Governance." Alternately, you can request a copy of any of these documents free of charge by writing to our Secretary, c/o Gevo, Inc., 345 Inverness Drive South, Building C, Suite 310, Englewood, Colorado 80112.

The Board presently has six members and is divided into three classes, designated Class I, Class II and Class III. Each class shall consist, as nearly as may be possible, of one-third of the total number of directors constituting the entire Board and each class has a three-year term. Our directors are divided among each of the classes as follows:

- the Class I directors are Ruth I. Dreessen, Patrick R. Gruber, Ph.D. and Ganesh M. Kishore, Ph.D., and their terms will expire at the annual meeting of stockholders to be held in 2017;
- the Class II director is Andy Marsh and his term will expire at the annual meeting of stockholders to be held in 2015; and
- the Class III directors are Shai Weiss and Gary W. Mize, and their terms will expire at the annual meeting of stockholders to be held in 2016.

At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election.

Our amended and restated certificate of incorporation (the "Certificate of Incorporation") provides that the authorized number of directors may be changed only by resolution of the Board. Directors may be removed only for cause by the affirmative vote of the holders of at least a majority of the votes that all our stockholders would be entitled to cast in an annual election of directors. Any vacancy on our Board, including a vacancy resulting from an enlargement of our Board, may be filled only by vote of a majority of our directors then in office, even if less than a quorum. Each director so chosen shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall have been duly elected and qualified.

Our Board has adopted corporate governance guidelines to assist the Board in the exercise of its duties and responsibilities and to serve the best interests of our Company and our stockholders. The corporate governance guidelines are available for review on our website at http://ir.gevo.com under the heading "Corporate Governance." These guidelines, which provide a framework for the conduct of our Board's business, provide:

- that the Board's principal responsibility is to oversee the management of the Company;
- criteria for Board membership;
- that a majority of the members of the Board shall be independent directors;
- limits on a Board member's service on boards of directors of other public companies;
- for the appointment of a lead independent director;
- that the independent directors meet regularly in executive session;
- that at least annually, the Board and its committees will conduct a self-evaluation; and
- that directors have complete access to all officers and employees.

Board Leadership Structure

The Board believes that its current independent Board structure is best for our Company and provides good corporate governance and accountability. The Board does not have a fixed policy regarding the separation of the roles of the Chairman of the Board and the Chief Executive Officer because it believes the Board should be able to freely select the Chairman of the Board based on criteria that it deems to be in the best interests of the Company and its stockholders. The functions of the Board are carried out by the full Board, and when delegated, by the Board committees. Each director is a full and equal participant in the major strategic and policy decisions of our Company.

Mr. Shai Weiss is the Chairman of our Board and Dr. Patrick Gruber is our Chief Executive Officer. Mr. Weiss was originally elected to the Board in 2007 as the designee of Virgin Green Fund pursuant to the terms of our Certificate of Incorporation, as in effect at that time, and was subsequently elected to the Board by our stockholders at the 2013 annual meeting of stockholders. The Board believes that the current structure of a separate Chairman of the Board and Chief Executive Officer is the optimum structure for the Company at this time.

Information Regarding Board Committees

Our Board has established a standing Audit Committee, a standing Compensation Committee and a standing Nominating and Corporate Governance Committee to devote attention to specific subjects and to assist it in the discharge of its responsibilities. All three committees operate under written charters adopted by our Board, each of which is available on our website at http://ir.gevo.com under the heading "Corporate Governance." Below is a description of each committee of our Board. Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate to carry out its responsibilities. The Board has determined that each member of each committee meets the applicable rules and regulations regarding "independence" and that each member is free of any relationship that would interfere with his or her individual exercise of independent judgment with regard to the Company.

Audit Committee

Our Audit Committee oversees our corporate accounting and financial reporting process. Among other matters, the Audit Committee appoints the independent registered public accounting firm; evaluates the independent registered public accounting firm's qualifications, independence and performance; determines the engagement of the independent registered public accounting firm; reviews and approves the scope of the annual audit and the audit fee; discusses with management and the independent registered public accounting firm the results of the annual audit and the review of our quarterly consolidated financial statements; approves the retention of the independent registered public accounting firm to perform any proposed permissible non-audit services; monitors the rotation of partners of the independent registered public accounting firm on our engagement team as required by law; reviews our consolidated financial statements and our management's discussion and analysis of financial condition and results of operations to be included in our annual and quarterly reports to be filed with the SEC; reviews our critical accounting policies and estimates; and annually reviews the Audit Committee charter and the committee's performance.

The current members of our Audit Committee are Ms. Ruth Dreessen and Messrs. Gary Mize and Andy Marsh, who was appointed to serve on the Audit Committee on February 12, 2015, each of whom is a non-employee member of our Board. Messrs. Cabrera and Smith served on the Audit Committee until their respective resignations from the Board in February 2015. Ms. Dreessen has served as the Chair of the committee since March 14, 2012. Our Board has determined that all members of our Audit Committee meet the requirements for independence and financial literacy under the applicable rules and regulations of the SEC and NASDAQ. Our Board has further determined that Ms. Dreessen is our audit committee financial expert, as that term is defined under the applicable rules of the SEC, and has the requisite financial sophistication as defined under the applicable rules and regulations of NASDAQ. The Audit Committee operates under a written charter that satisfies the applicable standards of the SEC and NASDAQ, a copy of which can be found on our website at http://ir.gevo.com under the heading "Corporate Governance."

Compensation Committee

Our Compensation Committee reviews and recommends policies relating to compensation and benefits of our officers and employees. The Compensation Committee reviews and approves corporate goals and objectives relevant to compensation of our Chief Executive Officer and other executive officers, evaluates the performance of these officers in light of those goals and objectives, and sets the compensation of these officers based on such evaluations. The Compensation Committee also recommends to our Board the issuance of stock options and other awards under our stock plans.

The current members of our Compensation Committee are Mr. Shai Weiss, Dr. Ganesh Kishore and Mr. Gary Mize, each of whom is a non-employee member of our Board. Mr. Weiss serves as the Chair of the committee. Our Board has determined that each of the members of our Compensation Committee is an independent or outside director under the applicable rules and regulations of the SEC, NASDAQ and the Code, relating to Compensation Committee independence. The Board also considered whether any member of the Compensation Committee has a relationship to us which is material to that director's ability to be independent from management in connection with the duties of a Compensation Committee member, including the source of compensation of such director, including any consulting, advisory or other compensatory fee paid by us to such director, and whether such director is affiliated with us, one of our subsidiaries or an affiliate of one of our subsidiaries. The Board concluded that there are no business relationships that would interfere with the exercise of independent judgment by any of the members of our Compensation Committee.

The Compensation Committee operates under a written charter, a copy of which can be found on our website at http://ir.gevo.com under the heading “Corporate Governance.” On an annual basis, the Compensation Committee reviews and evaluates its written charter and the performance of the committee and its members, including compliance of the committee with its written charter.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee is responsible for making recommendations to our Board regarding candidates for directorships and the size and composition of our Board. In addition, the Nominating and Corporate Governance Committee is responsible for overseeing our corporate governance policies and reporting and making recommendations to our Board concerning governance matters.

The current members of our Nominating and Corporate Governance Committee are Messrs. Shai Weiss, Gary Mize, and Andy Marsh and Ms. Ruth Dreessen, each of whom is a non-employee member of our Board. Mr. Weiss serves as the Chair of the committee. Our Board has determined that each of the members of our Nominating and Corporate Governance Committee is an independent director under the applicable rules and regulations of the SEC and NASDAQ relating to Nominating and Corporate Governance Committee independence. The Nominating and Corporate Governance Committee operates under a written charter, a copy of which can be found on our website at http://ir.gevo.com under the heading “Corporate Governance.” On an annual basis, the Nominating and Corporate Governance Committee reviews and evaluates its written charter and the performance of the committee and its members, including compliance of the committee with its written charter.

Code of Business Conduct and Ethics

Our Board has adopted a code of business conduct and ethics which applies to all of our employees, officers (including our principal executive officer, principal financial officer, and principal accounting officer or controller, or persons performing similar functions), directors and consultants. The full text of our code of business conduct and ethics has been posted on our website at http://ir.gevo.com under the heading “Corporate Governance.” We expect that any amendments to the code, or any waivers of its requirements, will be disclosed on our website.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Exchange Act requires our directors, executive officers and the holders of more than 10% of our common stock to file with the SEC initial reports of ownership of our common stock and other equity securities on a Form 3 and reports of changes in such ownership on a Form 4 or Form 5. Officers, directors and 10% stockholders are required by SEC regulations to furnish us with copies of all Section 16(a) forms they file. Based solely on the review of copies of the reports we have received and written representations provided to us from the individuals required to file the reports, we believe that each of our executive officers and directors has complied with applicable reporting requirements for transactions in Gevo, Inc. common stock during the year ended December 31, 2014, except as noted below.

Administrative oversights caused one late filing of the required Form 4 for Dr. Patrick Gruber, Dr. Chris Ryan and Mr. Mike Willis, and two late filings for Mr. Brett Lund, associated with the sale of shares to satisfy income tax obligations of the reporting persons associated with the release of vested restricted stock to such persons. Additionally, these oversights caused one late filing of the required Form 4 for Dr. Ganesh Kishore, Ms. Ruth Dreessen, and Messrs. Bruce Smith, Carlos Cabrera and Gary Mize associated with the annual retainer fees paid in stock for each of our non-employee directors.

Item 11. Executive Compensation
Compensation Committee Interlocks and Insider Participation

The members of our Compensation Committee are Mr. Shai Weiss, Dr. Ganesh Kishore and Mr. Gary Mize. None of the members of our Compensation Committee is or has been an officer or employee of the Company, and none of our executive officers currently serves, or in the past year has served, as a member of the board or compensation committee (or other committee serving an equivalent function) of any entity that has one or more executive officers serving on our Board or Compensation Committee.

Director Compensation

In May 2010, our Board adopted standard director compensation policies. Under these policies, each of our non-employee directors is entitled to an annual cash retainer of $50,000, with an additional annual cash retainer of $10,000 for service as Chair of our Audit Committee. In 2014, all of our directors received a stock award in lieu of cash for payment of the annual retainer. In addition, we reimburse all of our directors for the reasonable expenses incurred in connection with their attendance at Board or committee meetings. Each non-employee director is entitled to receive an equity grant upon his or her appointment to the Board and is also eligible to receive annual equity grants.

Director Compensation Table

The following table sets forth information regarding compensation earned by our non-employee directors during the fiscal year ended December 31, 2014.

Name	Fees earned or paid in cash ($)	Stock awards ($) (1)	Option awards ($) (1)	All other compensation ($)	Total ($)
Shai Weiss (2)	-	-	-	-	-
Carlos A. Cabrera (3)	-	81,250	31,250	-	112,500
Ruth Dreessen(4)	-	91,250	31,250	-	122,500
Samir Kaul (5)	-	81,250	31,250	-	112,500
Ganesh M. Kishore, Ph.D.	-	81,250	31,250	-	112,500
Gary W. Mize	-	81,250	31,250	-	112,500
Stacy J. Smith (5)	-	81,250	31,250	-	112,500
Bruce A. Smith (3)	-	81,250	31,250	-	112,500
Andy Marsh (6)	-	-	-	-	-

(1) The amounts in the “Stock awards” and “Option awards” columns reflect the aggregate grant date fair value of awards granted during the year ended December 31, 2014 in accordance with FASB ASC Topic 718. The assumptions used by us with respect to the valuation of option awards are set forth in Note 11 to our consolidated financial statements, which are included in this Report.
(2) Mr. Weiss declined all compensation for his service as director during 2014.
(3) Mr. Bruce Smith and Mr. Cabrera resigned from our Board in February 2015.
(4) Fees paid include an additional $10,000 stock award paid to Ms. Dreessen as compensation for her service as Chair of the Audit Committee.
(5) Mr. Kaul and Mr. Stacy Smith resigned from our Board in June 2014.
(6) Mr. Marsh joined our Board in February 2015.

Compensation Discussion and Analysis

Named Executive Officers

The individuals in the Summary Compensation Table set forth after this Compensation Discussion and Analysis are referred to as the “named executive officers.” Our named executive officers as of December 31, 2014 are:

- Dr. Patrick R. Gruber, Chief Executive Officer
- Mike Willis, Chief Financial Officer and Executive Vice President of Corporate Development and Strategy
- Dr. Christopher Ryan, President, Chief Operating Officer and Chief Technology Officer
- Brett Lund, Chief Legal Officer, General Counsel and Secretary
- Greg Roda, Chief Commercial Officer

Overview — Compensation Philosophy and Objectives

We believe that every aspect of our compensation programs, including the mix of short-term and long-term, cash and equity, and fixed and contingent payments should enhance the Company's ability to maximize stockholder value over time. Our specific objectives consistent with that philosophy are to:

- provide a target level of total compensation sufficient to attract and retain the talent needed to formulate and execute our strategies;
- deliver compensation in a manner that aligns the interests of our executive officers with our stockholders; and
- achieve our attraction and alignment goals at a reasonable cost to the stockholders, mindful of our competing needs of conserving cash and limiting stockholder dilution.

To meet these objectives, we provide each named executive officer a cash salary, annual incentive payments based upon the achievement of corporate goals established by the Compensation Committee, regular grants of equity and other benefits typical of a company in our sector. While our objectives guide the development of our compensation programs, the Compensation Committee has the prerogative to alter our programs and practices according to the evolving needs of the Company, within the constraints of any agreements in place with individual employees.

Role of the Compensation Committee

The current members of our Compensation Committee are Mr. Shai Weiss, Dr. Ganesh Kishore and Mr. Gary Mize. Each of these individuals qualifies as (i) an "independent director" under the requirements of NASDAQ, (ii) a "non-employee director" under Rule 16b-3 of the Exchange Act, and (iii) an "outside director" under Section 162(m) of the Code. The Compensation Committee evaluates, approves, administers and interprets our executives' compensation and benefit policies, including our annual executive incentive plan, our 2006 Omnibus Securities and Incentive Plan (the "2006 Plan") and our Gevo, Inc. 2010 Stock Incentive Plan (as amended, the "2010 Plan"), consistent with our compensation philosophy.

Role of Executive Officers in Compensation Decisions

For executive officers other than our Chief Executive Officer, the Compensation Committee has historically sought and considered input from our Chief Executive Officer regarding such executive officers' responsibilities, performance and compensation. Specifically, our Chief Executive Officer recommends base salary increases, equity award levels and the performance goals that are used throughout our compensation plans, and advises the Compensation Committee regarding the compensation program's ability to attract, retain and motivate executive talent. Our Compensation Committee has and exercises the ability to materially increase or decrease the compensation amounts recommended by our Chief Executive Officer. Our Chief Executive Officer is also involved in our executive compensation process by providing input on the performance targets for our compensation plan, including the relative weight to be assigned to each performance target, and presenting data regarding the impact of the executive compensation programs on our financial performance. Our Compensation Committee routinely meets in executive session, and our Chief Executive Officer is not permitted to attend during sessions of the Compensation Committee and sessions of the Board where decisions are made regarding his compensation.

Role of Compensation Consultant

Effective April 21, 2011, our Compensation Committee appointed Hodak Value Advisors (the "Compensation Consultant"), an independent consultant, to formulate a report and make recommendations to our Compensation Committee regarding executive compensation. In 2014, the Compensation Consultant presented to our Compensation Committee information based on peer group and other market data supplemented by survey data for particular positions. The peer group companies chosen were primarily public biofuel and alternative energy companies that are comparable in size by revenue and market cap and are in similar stages of development as the Company. In making its report to the Compensation Committee, the Compensation Consultant used compensation peer data from the following companies:

Amyris, Inc.	Parabel, Inc.
Codexis, Inc.	Solazyme, Inc.
Genomatica, Inc.	Synthesis Energy Systems
Metabolix, Inc.	Rentech, Inc.
Myriant, Inc.	

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The Compensation Committee used the peer group and market and survey data provided by the Compensation Consultant to make the initial determination of the competitiveness of target total compensation for each executive. Our Compensation Committee makes adjustments down or up from such market-based determination based on its comprehensive assessment of retention risk for each executive, based in part on input from our Chief Executive Officer with regard to the positions that report to him.

Board's Consideration of Advisory Vote

In June 2013, we held a stockholder advisory vote on the compensation of our named executive officers, commonly referred to as a say-on-pay vote. Our stockholders approved the compensation of our named executive officers, with approximately 88% of stockholder votes cast in favor of our say-on-pay resolution. As we evaluated our compensation practices and talent needs throughout fiscal 2014, our Board was mindful of the strong support our stockholders expressed for our philosophy of linking compensation to our operating objectives and the enhancement of stockholder value.

Executive Compensation Program

Our executive compensation program consists of five elements: base salary; annual bonuses; equity-based awards; benefits; and severance/change of control protection. These components allow us to attract, retain and motivate our executives in accordance with our compensation objectives. Cash salary, a minimum level of guaranteed equity for certain officers, and benefits typical of our sector comprise the fixed components of our total compensation. The variable components include a cash bonus and equity awards based on the performance of the Company.

Change of control and severance arrangements contribute to the retention of our employees and reduce the degree to which the possible loss of employment might affect our executives' willingness to take risks and/or pursue strategic relationships and transactions that, while potentially beneficial to our stockholders, might result in the termination of the executives' employment.

Our executives' total compensation may vary significantly year to year based on Company, functional area and individual performance. Our Compensation Committee meets at least annually to evaluate and refine this program to ensure that these elements are balanced, and consistent with our compensation objectives to allow us to attract, retain and motivate our executives in a cost-effective manner.

Weighting of Elements in our Compensation Program

The allocation of emphasis across compensation elements is based on a subjective determination by the Compensation Committee of the importance of each element in meeting our overall objectives. In general, we seek to put a significant amount of each executive's total potential compensation "at risk" based on corporate and/or individual performance. We believe that, as is common in the technology sector, stock option and other equity-based awards are significant in attracting and retaining employees and that salary and bonus levels are, in many instances, secondary considerations to many employees, particularly at the executive and managerial levels.

Base Salary

We provide a base salary to our named executive officers and other employees to compensate them for services rendered on a day-to-day basis during the fiscal year. Base salary will typically be used to recognize the experience, skills, knowledge and responsibilities required of each named executive officer, and should reflect the overall sustained performance and contributions to us by such officer over time. When determining the base salary for newly hired executive officers, the Compensation Committee considers the base salary of the individual at his or her prior employment and any unique personal circumstances that motivated the executive to leave that prior position and join us. Once base pay levels are initially determined, increases in base pay are generally made as appropriate to recognize changes in the competitive landscape, or enhanced roles or responsibilities.

The base salaries of Drs. Gruber and Ryan and Mr. Lund were established in agreements made in June 2010, which became effective upon the closing of our initial public offering. The base salary of Dr. Ryan was increased in December 2011, and the base salary of Mr. Lund was increased in April 2012. The base salary of Mr. Roda was established in an agreement that became effective in September 2013. The base salary of Mr. Willis was originally established in an agreement made in December 2012. As a result of his appointment to serve as Chief Financial Officer, Mr. Willis entered into a new offer letter agreement with the Company in April 2014 pursuant to which his base salary was increased, retroactive to the date of his appointment to serve as Interim Chief Financial Officer. None of our executives is currently party to an employment agreement that provides for automatic or scheduled increases in base salary. However, on a periodic basis, base salaries for our executives, together with other components of compensation, are reevaluated.

The following table sets forth information regarding base salaries for fiscal year 2014 for our named executive officers:

Name of Executive Officer	2014 Base Salary Rate
Patrick R. Gruber, Ph.D.	$500,000
Brett Lund, J.D., M.B.A	$325,000
Greg Roda	$305,000
Christopher Ryan, Ph.D.	$335,000
Mike Willis (1)	$308,000

(1) In April 2014, Mr. Willis entered into a new offer letter agreement which provided for an increase in annual base salary which was retroactive to September 2013, when Mr. Willis was appointed to serve as Interim Chief Financial Officer. As a result, Mr. Willis was paid $46,792 in April 2014 for services provided as Interim Chief Financial Officer during the last four months of 2013.

Annual Bonuses

Target annual bonuses are an important component of the total target compensation necessary to attract and retain our needed talent. Annual bonus awards, to the extent they are earned, align the interests of executive officers and stockholders, in accordance with our compensation philosophy, by rewarding, and thereby encouraging, the achievement of value-creating goals of the Company.

Under the terms of their respective employment agreements, each executive is eligible to receive a bonus based on the achievement of certain business goals set by our Board on an annual basis. The target annual bonuses for our named executive officers, expressed as a percentage of their base salary, are as follows:

Name of Executive Officer	2014 Bonus Target (as % of 2014 base salary)
Patrick R. Gruber, Ph.D.	50%
Brett Lund, J.D., M.B.A	40%
Greg Roda	33%
Christopher Ryan, Ph.D.	40%
Mike Willis (1)	40%

(1) Effective as of September 2013, when Mr. Willis was appointed to serve as Interim Chief Financial Officer.

In March 2015, our Compensation Committee determined that bonuses for 2014 would be discretionarily awarded. Based upon the Company performance in 2014, incentive bonus payments were awarded as described below.

The following formula can be used to calculate the incentive bonus payment to be made to a named executive officer:

Bonus Amount = (Base Salary) x (Target Percentage) x (Company Performance Factor)

Name of Executive Officer	Bonus Target (base salary * target %)	2014 Company Performance Factor	2014 Bonus
Patrick R. Gruber, Ph.D.	$250,000	100 %	$250,000
Brett Lund, J.D., M.B.A	130,000	100 %	130,000
Greg Roda	100,000	100 %	100,000
Christopher Ryan, Ph.D.	134,000	100 %	134,000
Mike Willis	123,500	100 %	123,500

In order to conserve cash for 2015 and further align the interests of our executive officers with those of our stockholders, the Compensation Committee determined that the 2014 bonus payments will be made in shares of the Company's common stock, with the number of shares to be issued to each executive to be based on the closing price of the common stock on the business day immediately prior to such payment. The 2014 bonus payments will be made in 2015 and are contingent on the availability of shares to satisfy payment.

In addition to the annual bonus, the employment agreements provide that additional bonus amounts may be paid, at the discretion of our Board, to reflect each executive's contributions to the accomplishment of our long-range business goals, the success of the corporate strategies in which the executive participates and the unique services that the executive provides in connection with increasing stockholder value. No discretionary amounts were paid under these provisions in 2014.

Equity-based Awards

We provide equity-based awards to our executives as a component of competitive target total pay, and as a vehicle for enhancing ownership by our executives to better align their interests with the interests of our stockholders and to foster a culture of ownership. We typically make an initial equity award of stock options to new employees and periodic grants at other times, as approved by the Compensation Committee. Generally our Compensation Committee recommends, and our Board approves, equity awards during its first formal meeting of the fiscal year, which generally occurs in March. Grants of restricted stock typically vest over three years. Grants of options have an exercise price that is at least equal to the fair market value of our common stock on the date of grant, as determined by our Board. For options granted to our named executive officers in 2010 and earlier, vesting commenced upon the executive officer's respective date of hire, and continues over four years, subject to the executives' continued employment with the Company. For the options granted to our named executive officers in 2011 and after, vesting generally commenced upon the date of grant, and continues over three years, subject to the executives' continued employment with the Company.

The employment agreements with Dr. Ryan and Mr. Lund provide for annual minimum equity incentive awards with the following fair market values on the date of grant:

Name of Executive Officer	Annual Minimum Equity Incentive Award
Brett Lund, J.D., M.B.A	$ 65,000
Christopher Ryan, Ph.D.	200,000

On March 12, 2014, Drs. Gruber and Ryan and Messrs. Lund and Roda were granted aggregate annual equity incentive awards, based in part on the performance of the Company during the year ended December 31, 2013, and in accordance with the terms of their employment agreements. The following table sets forth the number of equity awards granted on March 12, 2014 and the total fair market values on that date for each executive.

Name	Option Awards (#)	Stock Awards (#)	Total Fair Market Value ($)
Patrick R. Gruber, Ph.D.	228,495	145,548	425,000
Brett Lund, J.D., M.B.A	34,947	22,261	65,000
Greg Roda	26,882	17,124	50,000
Christopher Ryan, Ph.D.	204,302	130,137	380,000

In April 2014, the Company entered into a new offer letter agreement with Mr. Willis. The new offer letter agreement included a 2014 annual equity incentive grant, based in part on the performance of the Company during the year ended December 31, 2013, of an option to purchase 26,882 shares of common stock and an award of $25,000 to be paid in shares of restricted stock of the Company at a later date (each with vesting retroactive to March 12, 2014), with a total fair market value on the date of grant equal to $50,001. The new offer letter also included a grant of an option to purchase 60,000 shares of the Company's common stock and an award of $58,400 to be paid in shares of restricted stock of the Company at a later date (each with vesting retroactive to September 2013, when Mr. Willis was appointed to serve as Interim Chief Financial Officer), with a total fair market value on the date of grant equal to $114,200.

In May 2014, Drs. Gruber and Ryan and Messrs. Lund , Roda, and Willis were granted aggregate annual equity incentive awards, based in part on the performance of the Company during the year ended December 31, 2013, and in accordance with the terms of their employment agreements. The following table sets forth the number of equity awards granted on March 12, 2014 and the total fair market values on that date for each executive.

Name	Stock Awards (#)	Total Fair Market Value ($)
Patrick R. Gruber, Ph.D.	54,945	50,000
Brett Lund, J.D., M.B.A	28,571	26,000
Greg Roda	8,595	7,821

Christopher Ryan, Ph.D.	29,451	26,000
Mike Willis	27,473	25,000

Benefits

We provide the following benefits to our named executive officers on the same basis provided to all of our Gevo, Inc. employees:

- health, dental and vision insurance;
- life insurance, short- and long-term disability, accidental death and dismemberment;
- a 401(k) plan; and
- a medical and dependent care flexible spending account.

We believe these benefits are consistent with companies with which we compete for employees.

Severance/Termination-Based Compensation

Our Compensation Committee provides our executives with termination protection when it determines that such protection is necessary to attract or retain an executive. Each executive officer is entitled to receive severance payments and benefits in the event that they are terminated without cause or resign for good reason, pursuant to the terms of their respective employment agreements. The employment agreements also provide payments to these named executive officers in the event of a change of control and the employment agreements of Drs. Gruber and Ryan and Messrs. Lund and Willis provide for certain benefits in the event that an executive is terminated upon or within 90 days following a change of control.

The severance payments and benefits that are payable under these agreements are further described below in the sections entitled “Employment Arrangements” and “Potential Payments upon Termination and Change of Control.”

Tax Considerations

Section 162(m) of the Code generally disallows a tax deduction for compensation in excess of $1.0 million paid to certain named executive officers. Qualifying performance-based compensation is not subject to the deduction limitation if specified requirements are met. We generally intend to structure the performance-based portion of our executive compensation, when feasible, to comply with exemptions in Section 162(m) so that the compensation remains tax deductible to us. However, our Board may, in its judgment, authorize compensation payments that do not comply with the exemptions in Section 162(m) when it believes that such payments are appropriate to attract and retain executive talent.

Risks Related to Compensation Policies and Practices

The Compensation Committee has considered whether the Company’s overall compensation program for its employees creates incentives for employees to take excessive or unreasonable risks that could materially harm the Company. We believe that several features of our compensation policies for management employees appropriately mitigate such risks, including a mix of long- and short-term compensation incentives that we believe is properly weighted and the uniformity of compensation policies across the Company, which the Compensation Committee regards as setting an appropriate level of risk taking for the Company. We also believe the Company’s internal legal and financial controls appropriately mitigate the probability and potential impact of an individual employee committing the Company to a harmful long-term business transaction in exchange for short-term compensation benefits.

2014 Summary Compensation Table

The following table summarizes the compensation earned by our Chief Executive Officer, Chief Financial Officer and each of our three other most highly compensated executive officers during the year ended December 31, 2014. In this Compensation Discussion and Analysis, we refer to these officers as our named executive officers.

Name and Principal position	Year	Salary ($) (1)	Bonus ($) (2)(10)	Stock Awards ($) (3)	Option Awards ($) (3)	Non-Equity Incentive Plan Compensation ($) (4) (10)	All Other Compensation ($)		Total ($)
Patrick R. Gruber, Ph.D. Chief Executive Officer,	2014	500,000	250,000	262,500	212,500		34,551	(5)	1,259,551
Director	2013	500,000	-	411,924	50,256	50,000	40,169	(5)	1,052,349
	2012	500,000	-	425,003	270,606	2,500,000	38,243	(5)	3,733,852
Brett Lund, J.D., M.B.A Chief Legal Officer,	2014	325,000	130,000	58,500	32,500		-		546,000
General Counsel and	2013	325,000	-	288,346	35,179	26,000	27,726	(6)	702,251
Secretary	2012	319,519	-	297,497	238,465	-	12,250	(6)	867,731
Greg Roda Chief Commercial	2014	305,000	100,000	32,821	25,000		-		462,821
Officer	2013	90,327	-	-	117,950	7,821	-		216,098
Christopher Ryan, Ph.D. President, Chief Operating	2014	335,000	134,000	216,800	190,000		-		875,800
Officer and Chief Technology	2013	335,000	-	431,596	35,179	26,800	-		828,575
Officer	2012	334,808	-	297,497	189,424	-	42,749	(7)	864,478
Mike Willis Chief Financial	2014	354,792 (8)	123,500	83,401	80,800		36,474	(9)	678,967
Officer &	2013	151,769	-	-	-	24,640	29,350	(9)	205,759

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(1) For information regarding the annual salary rate of our named executive officers, see "Employment Arrangements" below.
(2) The 2012 bonus amounts were waived by our named executive officers. The "Bonus" column represents bonuses earned on the basis of performance relative to target bonus metrics. See "Compensation Discussion and Analysis" above for a discussion of how the bonus program worked in operation. See also "Grants of Plan-Based Awards in Fiscal Year 2013" under the column "Estimated Future Payouts Under Non-Equity Incentive Plan Awards" for the target amounts named executive officers were eligible to earn in 2013. Our Board retained discretion to approve payments in excess of the target. There were no cash bonuses awarded for 2013 or 2014 and all amounts were distributed in Stock Awards and Option Awards.
(3) The amounts in the "Stock Awards" and "Option Awards" columns reflect the aggregate grant date fair value of awards granted during each respective year for each named executive officer, in accordance with FASB ASC Topic 718. The assumptions used by us with respect to the valuation of option awards are set forth in Note 11 to our consolidated financial statements.
(4) A total of $3,000,000 in non-equity payments were made to Dr. Gruber in 2011 and 2012 in consideration for his December 2011Amendment Agreement (see the section entitled "Employment Arrangements — Patrick Gruber Ph.D." below). The Amendment Agreement provided for $1,500,000 which was paid in three equal payments of $500,000 each in December 2011, March 2012 and June 2012. One payment was made in December 2011. The other two $500,000 payments are reflected in the 2012 amount. The Amendment Agreement also provided for one payment of $1,500,000 due upon consummation of a debt offering or equity offering, or combination thereof, in an aggregate amount of $50,000,000. Upon closing of the Company's concurrent equity and convertible debt offerings with aggregate proceeds of $106,875,000 on July 5, 2012, this term was determined to have been met by the Board and Dr. Gruber received a payment of $1,500,000 in July 2012.
(5) For 2014, represents $21,600 for payments to maintain a corporate apartment, $12,951 for gross up tax assistance provided to Dr. Gruber. For 2013, represents $27,180 for payments to maintain a corporate apartment, $12,989 for gross up tax assistance provided to Dr. Gruber. For 2012, represents $24,150 for payments to maintain a corporate apartment, $10,890 for gross up tax assistance provided and $3,203 in other benefits provided to Dr. Gruber.

(6) For 2013, represents payments to maintain a corporate apartment. For 2012, represents $12,250 for Company match on 401(k) plan.

(7) For 2012, represents $12,250 for Company match on 401(k) plan, $21,020 for health benefits and $9,479 in gross up tax benefits.

(8) In April 2014, Mr. Willis entered into a new offer letter agreement which provided for an increase in annual base salary which was retroactive to September 2013, when Mr. Willis was appointed to serve as Interim Chief Financial Officer. As a result, Mr. Willis was paid $46,792 in April 2014 for services provided as Interim Chief Financial Officer during the last four months of 2013.

(9) For 2014, represents $22,200 for payments to maintain a corporate apartment and $14,274 for gross up tax assistance provided to Mr. Willis. For 2013, represents $21,011 for payments to maintain a corporate apartment and $8,339 for gross up tax assistance provided to Mr. Willis.

(10) For 2014 and 2015, in order to conserve cash for and further align the interests of our executive officers with those of our stockholders, the Compensation Committee determined that the 2013 and 2014 bonus payments would be made in shares of the Company's common stock, with the number of shares issued to each executive to be based on the closing price of the common stock on the business day immediately prior to such payment. The 2013 bonus payments were paid in 2014. The 2014 bonus payments will be made in 2015, and are contingent on the availability of shares to satisfy payment.

Grants of Plan-Based Awards in 2014 Table

All options granted to our named executive officers are non-statutory stock options. The exercise price per share of each option granted to our named executive officers was equal to the closing price of our common stock on the NASDAQ Global Market on the date of the grant. We also make grants of restricted shares of our common stock.

The following table shows information regarding grants of equity awards to our named executive officers during the year ended December 31, 2014.

Name of Executive Officer	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards ($) (1)	All Other Option Awards; Number of Securities Underlying Options (#)	Exercise or Base Price of Option Awards ($/share)	Grant Date Fair Value of Option Awards ($) (2)	All Other Stock Awards; Number of Shares of Stock (#)	Grant Date Fair Value of Stock Awards ($)
Patrick R. Gruber, Ph.D.	3/12/2014		228,849	$ 1.46	212,500		
	3/12/2014					145,548	212,500
	3/12/2014					34,247	50,000
	5/28/2014					54,945	51,648
	3/23/2015	250,000					
Brett Lund, J.D., M.B.A	3/12/2014		29,750	$ 1.46	32,500		
	3/12/2014					22,261	32,500
	3/12/2014					17,808	26,000
	5/28/2014					28,571	26,000

	3/23/2015	130,000					
Greg Roda	3/12/2014		26,924	$ 1.46	25,000		
	3/12/2014					17,124	25,000
	3/12/2014					5,357	7,821
	5/28/2014					8,595	7,821
	3/23/2015	100,000					
Christopher Ryan, Ph.D.	3/12/2014		204,618	$ 1.46	190,000		
	3/12/2014					130,137	190,000
	3/12/2014					18,356	26,800
	5/28/2014					29,451	26,800
	3/23/2015	134,000					
Mike Willis	4/8/2014		60,000	$ 1.18	55,800		
	4/8/2014		26,822	$ 1.18	25,000		
	5/28/2014					27,077	24,640
	5/28/2014					27,473	25,000
	5/28/2014					64,176	58,400

3/23/2015	123,500

(1) This column shows the awards for fiscal year 2014 to our named executive officers under the 2014 incentive bonus program, which amounts will be paid in shares of the Company's common stock.
(2) The amounts set forth in the "Grant Date Fair Value of Option Awards" column reflect the aggregate grant date fair value of awards determined in accordance with FASB ASC Topic 718. The assumptions used in determining such amounts are described in Note 11 to our consolidated financial statements included in this Report.

Outstanding Equity Awards at 2014 Fiscal Year-End

The following table shows the grants of stock options to our named executive officers that were outstanding on December 31, 2014, the last day of our fiscal year.

				Option Awards				Stock Awards	
Name	Grant Date	Vesting Commencement Date		Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date	Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units That Have Not Yet Vested ($) (6)
Patrick R. Gruber, Ph.D.	5/2/2007	5/2/2007	(1)	353,183	-	0.46	5/2/2017	-	-
	7/1/2008	12/21/2012	(7)	323,959	-	1.16	7/1/2018	-	-
	11/16/2009	12/21/2012	(7)	242,790	-	2.70	11/16/2019	-	-
	6/3/2010	12/21/2012	(7)	105,000	-	10.07	6/3/2020	-	-
	3/23/2011	3/23/2011	(2)	121,335	-	17.53	3/23/2021	-	-
	3/14/2012	3/14/2012	(2)	40,139	2,361	9.41	3/14/2022	-	-
	3/15/2013	3/15/2013	(2)	25,972	16,528	1.89	3/15/2023	-	-
	3/12/2014	3/12/2014	(4)	63,521	164,974	1.46	3/21/2024		
	3/14/2012	3/14/2012	(4)					2,509	803
	3/15/2013	3/15/2013	(4)					84,761	27,124
	3/12/2014	3/12/2014	(4)					105,086	33,628
Christopher Ryan, Ph.D.	11/16/2009	6/15/2009	(3)	175,000	-	2.70	11/16/2019	-	-
	6/3/2010	6/15/2009	(3)	44,000	-	10.07	6/3/2020	-	-
	3/14/2012	3/14/2012	(2)	28,097	1,658	9.41	3/14/2022	-	-
	3/15/2013	3/15/2013	(2)	18,181	11,569	1.89	3/15/2023	-	-
	3/12/2014	3/12/2014	(4)	56,795	147,507	1.46	3/12/2024		
	3/23/2011	3/23/2011	(4)					-	-
	3/14/2012	3/14/2012	(4)					1,756	562
	3/15/2013	3/15/2013	(4)					59,332	18,986
	7/18/2013	7/18/2013	(4)					37,501	12,000
	3/12/2014	3/12/2014	(4)					93,959	30,067
Brett Lund, J.D., M.B.A	11/16/2009	12/17/2007	(3)	31,000	-	2.70	11/16/2019	-	-
	6/3/2010	12/17/2007	(3)	68,500	-	10.07	6/3/2020	-	-
	3/14/2012			21,492	-	9.41	3/14/2022	-	-
	3/14/2012	3/14/2012	(2)	15,347	903	9.41	3/14/2022	-	-
	3/15/2013	3/15/2013	(2)	18,181	11,569	1.89	3/15/2023	-	-

	3/12/2014	3/12/2014	(4)	9,715	25,232	1.46	3/12/2024		
	3/23/2011	3/23/2011	(4)					-	-
	3/14/2012	3/14/2012	(4)					959	307
	3/15/2013	3/15/2013	(4)					59,332	18,986
	3/12/2014	3/12/2014	(4)					16,073	5,143
Mike Willis	12/28/2012	12/28/2012	(8)	69,444	30,556	1.55	12/28/2022	-	-
	4/08/2014	4/08/2014	(4)	26,672	33,328	1.18	4/08/2024		
	4/08/2014	4/08/2014	(4)	7,469	19,413	1.18	4/08/2024		
	5/28/2014	5/28/2014	(4)					19,833	6,347
	5/28/2014	5/28/2014	(4)					35,648	11,407
Greg Roda	9/12/2013	9/12/2013	(8)	44,444	55,556	1.86	9/12/2023	-	-
	3/12/2014	3/12/2014	(4)	7,473	19,409	1.46	3/12/2024		
	3/12/2014	3/12/2014	(4)					12,364	3,956

(1) Each option vests as to 1/5th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and 1/60th of the total number of shares subject to the option shall vest monthly thereafter until all shares are vested.
(2) 1/36th of the total number of shares subject to the option shall vest monthly after the vesting commencement date until all shares are vested.
(3) Each option vests as to 1/4th of the total number of shares subject to the option on the first anniversary of the vesting commencement date, and 1/48th of the total number of shares subject to the option shall vest monthly thereafter until all shares are vested.
(4) 1/36th of the total number of shares subject to the stock award shall vest monthly after the vesting commencement date until all shares are vested.
(6) Amounts listed represent the aggregate market value of the unvested restricted stock awards held by the named executive officers as of December 31, 2014, based on the closing price of a share of the Company's common stock of $0.32 on December 31, 2014.
(7) Each option vests as to 1/3rd of the total number of shares subject to the option on December 21, 2012, and 1/36th of the total number of shares subject to the option shall vest monthly thereafter until all shares are vested.
(8) Each option vests as to 1/3rd of the total number of shares subject to the option on the first anniversary of the grant and 1/36th of the total number of shares subject to the option shall vest monthly thereafter until all shares are vested.

The vesting of the awards set forth in the table above may be accelerated in certain situations. See the sections entitled "Employment Arrangements" and "Potential Payments upon Termination and Change of Control" below.

Option Exercises and Stock Vested During Fiscal Year 2014

The following table provides additional information regarding the value realized by our named executive officers upon the exercise of option awards and the vesting of restricted stock awards during the year ended December 31, 2014.

	Option Awards		Stock Awards	
Name	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise ($)	Number of Shares Acquired on Vesting (#)	Value Realized on Vesting ($)
Patrick R. Gruber, Ph.D.	-	-	179,069	143,157
Brett Lund, J.D., M.B.A	-	-	92,298	76,373
Greg Roda	-	-	12,879	10,945
Christopher Ryan, Ph.D.	-	-	151,236	119,605
Mike Willis	-	-	60,698	50,389

Pension Benefits

We do not maintain any defined benefit pension plans.

Nonqualified Deferred Compensation

We do not maintain any nonqualified deferred compensation plans.

Employment Arrangements

Patrick Gruber, Ph.D.

On July 1, 2008, we entered into an employment agreement with Dr. Patrick Gruber, our Chief Executive Officer and a member of our Board, which provided for an annual base salary of $350,000, and an incentive bonus of up to $75,000 per year based on his achievement of certain milestones determined by our Board on an annual basis. Pursuant to that employment agreement, Dr. Gruber was granted options to purchase 323,959 shares of our common stock under the 2006 Plan. Effective June 1, 2010, our Compensation Committee approved an increase in Dr. Gruber's annual base salary to $410,000.

On June 4, 2010, we entered into a new employment agreement with Dr. Gruber, which became effective upon the closing of our initial public offering. This agreement superseded and terminated Dr. Gruber's previous employment agreement. Under the June 4, 2010 employment agreement, Dr. Gruber's base salary is $500,000 per year, subject to annual review and adjustment by our Board. Dr. Gruber is eligible to receive an annual bonus of up to 50% of his base salary based on the achievement of certain business goals set by our Board on an annual basis, and may receive additional bonus amounts at the discretion of our Board. Pursuant to the terms of the June 4, 2010 employment agreement, Dr. Gruber was eligible to receive an annual incentive award with a fair market value equal to $600,000 on the date of grant, consisting of restricted stock and/or stock options, and could receive additional stock awards at the discretion of our Board. Dr. Gruber is also entitled to participate in or receive benefits under all of our existing and future incentive programs and will continue to be eligible to participate in all employee benefit plans, including retirement plans, health care plans and fringe benefit plans, that are afforded generally to our executive officers.

On December 21, 2011, we entered into an Amendment Agreement with Dr. Gruber in order to retain Dr. Gruber and to enhance the alignment of his interests with those of our stockholders. Upon the effectiveness of the Amendment Agreement, all options to purchase our common stock that had been granted to Dr. Gruber in fiscal years 2008, 2009 and 2010 immediately became unvested (to the extent previously vested) and subject to a revised three-year vesting schedule. Pursuant to the Amendment Agreement, an aggregate of 624,505 options that were previously vested and exercisable (or approximately 64% of the vested options held by Dr. Gruber) became unvested. In addition, the guaranteed portion of Dr. Gruber's annual equity award, worth $600,000 per year, was eliminated, and his overall target equity award was reduced by the same amount. In exchange for these concessions, Dr. Gruber was granted a cash award of $3,000,000, $1,500,000 of which was payable within six months of the effective date of the Amendment Agreement, subject to Dr. Gruber's continued employment with the Company, and the balance of $1,500,000 of which was contingent upon the completion of a qualified equity or debt financing transaction resulting in aggregate gross proceeds to the Company of at least $50,000,000. The $1,500,000 cash award payable within six months of the effective date of the Amendment Agreement was paid in three equal installments of $500,000 each in December 2011, March 2012 and June 2012. The Board determined that the terms of the contingent $1,500,000 payment were achieved upon the closing of the Company's equity and debt offerings, generating gross proceeds of approximately $106,875,000, on July 5, 2012. Accordingly, the contingent $1,500,000 was paid in July 2012.

If Dr. Gruber's employment is terminated as a result of his disability or death, he or his estate will be entitled to receive his full base salary through the date of termination as well as an additional lump-sum payment equal to his annual base salary at the rate in effect at the time of such termination. If Dr. Gruber's employment is terminated without cause (other than by death or disability), or if he terminates his employment with us for good reason, he will be entitled to receive his full base salary through the date of termination, a bonus equal to the average of the annual bonuses paid to him in each of the three years preceding the termination, prorated to the date of termination, and, provided that he executes a general release of claims in favor of the Company within 60 days of the date of termination, he shall also receive a lump-sum payment equal to two years of his base salary then in effect plus 200% of his eligible bonus for the preceding year. Additionally, Dr. Gruber and his family will receive continued coverage under any Company sponsored group health plan in which he was enrolled at the time of his termination for a period of 12 months following his termination date and, immediately prior to such termination date, all of his outstanding unvested stock options and other equity awards shall immediately vest. Cause is defined as Dr. Gruber's conviction of a felony, willful misconduct or dishonesty materially injurious to the Company or a material failure to consistently discharge his duties under the employment agreement, unless resulting from his disability, provided that no act or failure to act will be considered willful if it is done, or omitted, in good faith and with the reasonable belief that such action or inaction is in the best interests of the Company. Good reason is defined as a material diminishment of Dr. Gruber's base salary, authority, duties or responsibilities, a relocation without his consent that increases his one-way commute to work by at least fifty miles or a material breach by us of the employment agreement.

The June 4, 2010 employment agreement also provides certain payments and benefits to Dr. Gruber in circumstances involving a change of control, as described below in the section entitled "Potential Payments upon Termination and Change of Control."

On February 16, 2015, we entered into a Second Amendment Agreement with Dr. Gruber to align Dr. Gruber's compensation with the strategic objectives of the Company. Upon the effectiveness of the Second Amendment Agreement, for a three-month period starting on the date of the grant, Dr. Gruber will receive 25% of his base pay, which amounts to $31,250 for three months, in shares of restricted stock instead of cash. The shares of restricted stock will be priced at the closing price of the Company's common stock on the date of the grant and will cliff vest 100% on the one-year anniversary of the date of the grant. In the event of a change of control, a termination of Dr. Gruber or a resignation by Dr. Gruber, the shares of restricted stock will accelerate on a prorated basis.

Greg Roda

Effective September 5, 2013, we entered into an offer letter agreement with Greg Roda, our Chief Commercial Officer, which provides for an annual base salary of $305,000 and an annual bonus of up to 40% of his base salary. Pursuant to that offer letter agreement, Mr. Roda was granted options to purchase 100,000 shares of our common stock under the 2010 Plan. The stock options were initially unvested and are scheduled to vest over time so long as Mr. Roda continues to be employed by the Company. Mr. Roda is also entitled to participate in or receive benefits under all of our existing and future employee benefit plans, including retirement plans, health care plans and fringe benefit plans that are afforded to similarly situated employees of the Company.

If Mr. Roda's employment with the Company is terminated for any reason, he will be entitled to receive payment of all unpaid salary and unused paid time off accrued and earned as of the date of termination. Additionally, Mr. Roda's benefits, if any, will continue under the Company's then-existing benefit plans and policies for so long as provided under the terms of such benefit plans and policies. If Mr. Roda's employment is terminated without cause, he will be entitled to receive a lump-sum payment in the amount of six month's salary and the Company will vest all of his unvested stock options and other equity awards (if any) outstanding at the time of such termination, provided that he executes a separation and release agreement in favor of the Company within 50 days of the date of termination.

The offer letter agreement also provides certain payments and benefits to Mr. Roda in circumstances involving a change of control, as described below in the section entitled "Potential Payments upon Termination and Change of Control."

Christopher Ryan, Ph.D.

On May 22, 2009, we entered into an offer letter agreement with Dr. Christopher Ryan, our President, Chief Operating Officer and Chief Technology Officer, which provided for an annual base salary of $285,000 and a grant of options to purchase 168,000 shares of our common stock under the 2006 Plan. Dr. Ryan was actually granted options to purchase 175,000 shares of our common stock under the 2006 Plan, the additional options were issued due to subjective factors and to account for dilution based on the timing of the grant.

On June 4, 2010, we entered into a new employment agreement with Dr. Ryan, which became effective upon the closing of our initial public offering. This agreement superseded and terminated Dr. Ryan's previous offer letter agreement. Under the June 4, 2010 employment agreement, Dr. Ryan's base salary is $325,000 per year, subject to annual review and adjustment by our Board. On December 8, 2011, Dr. Ryan's base salary was increased to $335,000 per year effective January 1, 2012. Dr. Ryan is eligible to receive an annual bonus of up to 40% of his base salary based on the achievement of certain business goals set by our Board on an annual basis and may receive additional bonus amounts at the discretion of our Board. Pursuant to the terms of the June 4, 2010 employment agreement, Dr. Ryan is eligible to receive an annual incentive award with a fair market value equal to $200,000 on the date of grant, consisting of restricted stock and/or stock options, and may receive additional stock awards at the discretion of our Board. Dr. Ryan is also entitled to participate in or receive benefits under all of our existing and future incentive programs and will continue to be eligible to participate in all employee benefit plans, including retirement plans, health care plans and fringe benefit plans, that are afforded generally to our executive officers.

If Dr. Ryan's employment is terminated as a result of his disability or death, he or his estate will be entitled to receive his full base salary through the date of termination as well as an additional lump-sum payment equal to his annual base salary at the rate in effect at the time of such termination. If Dr. Ryan's employment is terminated without cause (other than by death or disability), or if he terminates his employment with us for good reason, he will be entitled to receive his full base salary through the date of termination, a bonus equal to the average of the annual bonuses paid to him in each of the three years preceding the termination, prorated to the date of termination, and, provided that he executes a general release of claims in favor of the Company within 60 days of the date of termination, he shall also receive a lump-sum payment, equal to one year of his base salary then in effect plus 100% of his eligible bonus for the preceding year. Additionally, Dr. Ryan and his family will receive continued coverage under any Company sponsored group health plan in which he was enrolled at the time of his termination for a period of six months following his termination date and, immediately prior to such termination date, all of his outstanding unvested stock options and other equity awards shall immediately vest. The definitions of cause and good reason are consistent with the definitions set forth in our June 4, 2010 employment agreement with Dr. Gruber, as described above.

The June 4, 2010 employment agreement also provides certain payments and benefits to Dr. Ryan in circumstances involving a change of control, as described below in the section entitled "Potential Payments upon Termination and Change of Control."

Brett Lund, J.D., M.B.A.

On November 29, 2007, we entered into an offer letter agreement with Brett Lund, our Executive Vice President, General Counsel and Secretary, which provided for an annual base salary of $210,000 and a grant of options to purchase 30,000 shares of our common stock under the 2006 Plan.

On June 4, 2010, we entered into a new employment agreement with Mr. Lund, which became effective upon the closing of our initial public offering. This agreement superseded and terminated Mr. Lund's previous offer letter agreement. Under the June 4, 2010 employment agreement, Mr. Lund's base salary is $300,000 per year, subject to annual review and adjustment by our Board. Mr. Lund is eligible to receive an annual bonus of up to 30% of his base salary based on the achievement of certain business goals set by our Board on an annual basis and may receive additional bonus amounts at the discretion of our Board. Pursuant to the terms of the June 4, 2010 employment agreement, Mr. Lund is eligible to receive an annual incentive award with a fair market value equal to $65,000 on the date of grant, consisting of restricted stock and/or stock options, and may receive additional stock awards at the discretion of our Board. Mr. Lund is also entitled to participate in or receive benefits under all of our existing and future incentive programs and will continue to be eligible to participate in all employee benefit plans, including retirement plans, health care plans and fringe benefit plans, that are afforded generally to our executive officers.

On April 5, 2012, we amended Mr. Lund's employment agreement in order to reflect an increase in Mr. Lund's base salary from $300,000 to $325,000 per year and an increase in his annual incentive bonus target from 30% to 40% of his base salary. The increase in Mr. Lund's base salary and annual incentive bonus target were deemed effective from March 14, 2012. In addition, Mr. Lund's employment agreement was amended to permit the Chief Executive Officer to grant Mr. Lund additional annual equity incentive awards with a fair market value on the date of grant of up to $270,000 per year in such amounts and subject to such terms (including performance-based terms) that the Chief Executive Officer deems appropriate.

If Mr. Lund's employment is terminated as a result of his disability or death, he or his estate will be entitled to receive his full base salary through the date of termination as well as an additional lump-sum payment equal to his annual base salary at the rate in effect at the time of such termination. If Mr. Lund's employment is terminated without cause (other than by death or disability), or if he terminates his employment with us for good reason, he will be entitled to receive his full base salary through the date of termination, a bonus equal to the average of the annual bonuses paid to him in each of the three years preceding the termination, prorated to the date of termination, and provided that he executes a general release of claims in favor of the Company within 60 days of the date of termination, he shall also receive a lump-sum payment, equal to one year of his base salary then in effect plus 100% of his eligible bonus for the preceding year. Additionally, Mr. Lund and his family will receive continued coverage under any Company sponsored group health plan in which he was enrolled at the time of his termination for a period of six months following his termination date and, immediately prior to such termination date, all of his outstanding unvested stock options and other equity awards shall immediately vest. The definitions of cause and good reason are consistent with the definitions set forth in our June 4, 2010 employment agreement with Dr. Gruber, as described above.

The June 4, 2010 employment agreement also provides certain payments and benefits to Mr. Lund in circumstances involving a change of control, as described below in the section entitled "Potential Payments upon Termination and Change of Control."

Mike Willis

On December 28, 2102, we entered into an offer letter agreement with Mike Willis, our Chief Financial Officer and Executive Vice President of Corporate Development and Strategy, which provided for an annual base salary of $154,000 and a grant of options to purchase 100,000 shares of our common stock under the 2010 Plan.

On April 10, 2014, we entered into a new offer letter agreement with Mr. Willis, which superseded and terminated Mr. Willis' previous offer letter agreement. The new offer letter provides for an annual base salary of $308,000 and an annual bonus of up to 40% of his base salary, each of which is retroactive to September 3, 2013, the date that Mr. Willis was appointed to serve as the Chief Financial Officer of the Company. The new offer letter agreement provided for the following equity grants: (a) an option to purchase 60,000 shares of our common stock, with vesting retroactive to September 3, 2013; (b) an option to purchase 26,882 shares of our common stock, with vesting retroactive to March 12, 2014; (c) an award of $58,400 to be paid in shares of restricted stock, with vesting retroactive to September 3, 2013; and (d) an award of $25,000 to be paid in shares of restricted stock, with vesting retroactive to March 12, 2014, in each case under the 2010 Plan. Pursuant to the terms of the new offer letter agreement, Mr. Willis is eligible to receive an annual incentive award with a fair market value consistent with the fair market value of awards granted to similarly situated employees of the Company. Mr. Willis is also entitled to reimbursement of his monthly apartment rental costs for three years and is entitled to participate in or receive benefits under all of our existing and future employee benefit plans, including retirement plans, health care plans and fringe benefit plans, that are afforded generally to our executive officers.

If Mr. Willis' employment is terminated without cause (other than by death or disability), or if he terminates his employment with us for good reason, he will be entitled to receive his full base salary through the date of termination and, provided that he executes a general release of claims in favor of the Company within 50 days of the date of termination, he shall also receive a lump-sum payment, equal to one year of his base salary then in effect plus 100% of his eligible bonus. Additionally, Mr. Willis and his family will receive continued coverage under any Company sponsored group health plan in which he was enrolled at the time of his termination for a period of six months following his termination date and, immediately prior to such termination date, all of his outstanding unvested stock options and other equity awards shall immediately vest. The definitions of cause and good reason are consistent with the definitions set forth in our June 4, 2010 employment agreement with Dr. Gruber, as described above. If Mr. Willis' employment is terminated as a result of his disability or death, he or his estate will be entitled to receive his full base salary through the date of termination as well as an additional lump-sum payment equal to his annual base salary at the rate in effect at the time of such termination.

The new offer letter agreement also provides certain payments and benefits to Mr. Willis in circumstances involving a change of control, as described below in the section entitled "Potential Payments upon Termination and Change of Control."

Potential Payments upon Termination and Change of Control

In June 2010, we entered into new employment agreements with each of Drs. Gruber and Ryan and Mr. Lund which became effective upon the closing of our initial public offering. Under these employment agreements, in the event of a change of control, each of these executives (if still employed by the Company) is entitled to receive a lump-sum payment equal to two times the sum of (i) his annual base salary in effect immediately prior to such change of control and (ii) 100% of his eligible bonus for the year preceding the change of control. If upon or within 90 days after a change of control, any such executive is terminated without cause, or terminates his employment with us for good reason, he will keep the change of control payment described above and he and his family will be entitled to receive continued coverage under any Company sponsored group health plan in which he was enrolled at the time of his termination for a period of six months following his termination date (or twelve months in the case of Dr. Gruber), but he will not be entitled to any other termination benefits. Effective September 2013, we entered into an offer letter agreement with Mr. Roda which provides that, in the event of a change of control, Mr. Roda is entitled to receive a lump-sum payment in the amount of six month's salary. In April 2014, Mr. Willis entered into a new offer letter agreement with the Company which provides that, in the event of a change of control, Mr. Willis is entitled to receive a lump-sum payment equal to two times the sum of (i) his annual base salary in effect immediately prior to such change of control and (ii) 100% of his eligible bonus for the year preceding the change of control.

On the date any such executive becomes entitled to receive a change of control payment, all of his outstanding unvested stock options and other equity awards shall immediately vest. Change of control is defined as the acquisition by any person or group of all or substantially all of our assets through sale, lease, transfer, conveyance or other disposition, or the acquisition by any person or group of beneficial ownership of more than 40% of our outstanding voting stock (with the exception of Mr. Roda's offer letter agreement which defines change of control to include the acquisition of beneficial ownership of 50% of our outstanding voting stock).

The following table summarizes the potential payments and benefits payable to each of our named executive officers upon (i) a termination of employment without cause or resignation for good reason and (ii) a change of control (no termination required), as well as the additional benefits available upon termination without cause or resignation for good reason upon or within 90 days after a change of control, in each case assuming that such termination and change of control, where applicable, occurred on December 31, 2014.

	Termination without cause or resignation for good reason				Change of control (no termination required)			Termination without cause or resignation for good reason upon or within 90 days after a change of control (1)
	Base salary ($)	Bonus ($)	Value of accelerated equity awards ($) (2)	Benefits ($)	Base salary ($)	Bonus ($)	Value of accelerated equity awards ($) (2)	Benefits ($)

Patrick R. Gruber, Ph.D.	1,000,000	650,833	61,554	23,153	1,000,000	500,000	97,269	23,153
Brett Lund, J.D., M.B.A	325,000	191,767	24,436	4,197	650,000	260,000	24,436	4,197
Greg Roda	152,500	102,607	3,956	11,576	152,500	61,000	3,956	11,576
Christopher Ryan, Ph.D.	335,000	213,180	61,615	11,576	670,000	268,000	61,615	11,576
Mike Willis	123,200	131,713	17,754	4,027	616,000	246,400	17,754	4,027

(1) In the event that one of the named executive officers is terminated without cause or resigns for good reason upon or within 90 days after a change of control, he shall receive the following benefits in addition to the payments and accelerated vesting triggered by such change of control, but he will not be entitled to any other termination benefits.
(2) Amounts calculated based on the aggregate amount by which the fair market value of our common stock exceeded the aggregate exercise price of such awards as of December 31, 2014.

Confidential Information, Secrecy and Invention Agreements

Each of our named executive officers has entered into a standard form agreement with respect to confidential information, secrecy and inventions. Among other things, this agreement obligates each named executive officer to refrain from disclosing any of our proprietary information received during the course of employment and, with some exceptions, to assign to us any inventions conceived or developed during the course of employment.

Rule 10b5-1 Trading Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Rule 10b5-1 provides criteria under which such an individual may establish a prearranged plan to buy or sell a specified number of shares of a company's stock over a set period of time. Any such plan must be entered into in good faith at a time when the individual is not in possession of material, nonpublic information. If an individual establishes a plan satisfying the requirements of Rule 10b5-1, such individual's subsequent receipt of material, nonpublic information will not prevent transactions under the plan from being executed. Certain of our officers have advised us that they have or may enter into stock sales plans for the sale of shares of our common stock which are intended to comply with the requirements of Rule 10b5-1 of the Exchange Act. These trading plans may be entered into only during an open trading period and must be approved by the Company.

Employee Benefit and Stock Plans

Amended and Restated 2010 Stock Incentive Plan

Background

Since the closing of our initial public offering on February 14, 2011, equity awards are only granted pursuant to our 2010 Plan, which received stockholder approval on February 4, 2011, and became effective on the closing of our initial public offering. Our stockholders approved the 2010 Plan primarily in order to enable us to satisfy NASDAQ listing requirements, and to make awards that qualify as performance-based compensation that is exempt from the deduction limitation set forth under Section 162(m) of the Code. Section 162(m) generally limits the corporate income tax deduction to $1,000,000 annually for the nonperformance-based compensation paid to each of the Chief Executive Officer and the three other highest paid executive officers of the Company (other than the Chief Financial Officer).

No awards under the 2010 Plan occurred before the closing of our initial public offering. The 2010 Plan authorizes discretionary awards in the form of stock options, stock appreciation rights ("SARs"), restricted shares or units, unrestricted shares, deferred share units, performance awards and dividend equivalent rights. Our Board believes that the 2010 Plan is an important factor in attracting, retaining and motivating employees, consultants and directors of the Company and its affiliates, collectively referred to herein as eligible persons. Our Board believes that we need the flexibility, acting primarily through the Compensation Committee, both to have an ongoing reserve of common stock available for future equity-based awards, and to make future awards in a variety of forms.

On June 6, 2013, our stockholders approved the amendment and restatement of the 2010 Plan to, among other things, increase the number of shares reserved for issuance under the 2010 Plan from 2,571,286 shares to 5,571,286 shares, modify the 2010 Plan's vesting limitations provision and broaden the permissible performance measures for performance-based awards.

Share Reserve

We have reserved 5,571,286 shares of common stock for issuance under the 2010 Plan plus shares of common stock from awards that had been made under the 2006 Plan that are forfeited, cancelled, settled, or become unexercisable without the issuance of shares. At December 31, 2014, there were 1,353,423 shares available for grant under the 2010 Plan. We do not expect to receive cash consideration for the granting of awards under the 2010 Plan. However, if a stock option were to be exercised, we would receive the exercise price for the shares being purchased, unless the exercise occurs pursuant to a cashless alternative that we approve.

Outstanding Award Type	Number of Shares subject to outstanding awards under the 2010 Plan as of December 31, 2014
Stock Options	2,084,295
Restricted Shares (unvested)	879,515

Administration

Administration of the 2010 Plan will be carried out by our Compensation Committee; provided that our Board may act in lieu of the Compensation Committee at any time. If and to the extent permitted by applicable law, our Compensation Committee or our Board may authorize one or more executive officers to make awards under the 2010 Plan to eligible persons other than themselves. As used in this summary, the term administrator means the Compensation Committee, or the Board or its delegate if acting in lieu of the committee. With respect to decisions involving an award intended to satisfy the requirements of Section 162(m) of the Code, the administrator is to consist solely of two or more directors who are “outside directors” for purposes of that Code section, and with respect to awards to individuals subject to Section 16 of the Exchange Act, the administrator is to consist solely of two or more directors who are "non-employee directors" within the meaning of Rule 16b-3 of the Exchange Act. The 2010 Plan provides that we and our affiliates will indemnify members of the administrative committee and their delegates against any claims, liabilities or costs arising from the good faith performance of their duties under the 2010 Plan. The 2010 Plan will release these individuals from liability for good faith actions associated with the 2010 Plan's administration.

Subject to the terms of the 2010 Plan, the administrator has express authority to determine the eligible persons who will receive awards, the number of shares of our common stock to be covered by each award, and the terms and conditions of awards. The administrator has broad discretion to prescribe, amend and rescind rules relating to the 2010 Plan and its administration, to interpret and construe the 2010 Plan and the terms of all award agreements, and to take all actions necessary or advisable to administer the 2010 Plan. Within the limits of the 2010 Plan, the administrator may accelerate the vesting of any awards, allow the exercise of unvested awards, and may modify, replace, cancel or renew any awards. In addition, the administrator may buy-out, or replace, any award, including a stock option or SAR having an exercise price that is above the current fair market value of the underlying shares, with stockholder approval being generally required if options or SARs are granted or modified as part of a re-pricing.

Awards under the 2010 Plan vest on a pro rata basis over a period of not less than three years, or, for performance awards, a period of not less than one year from the commencement of the performance evaluation period. Awards that result in the total issuance of up to 15% of the shares available (as adjusted under certain other plan provisions) may be granted without respect to the plan's minimum vesting limitations.

Types of Awards

The administrator may grant options that are intended to qualify as incentive stock options, which we refer to as ISOs, only to employees, and may grant all other awards to any eligible persons. Stock options granted under the 2010 Plan will provide award recipients, or participants, with the right to purchase shares of our common stock at a predetermined exercise price. The administrator may grant stock options that are intended to qualify as ISOs or that are not intended to so qualify, which we refer to as Non-ISOs. The 2010 Plan also provides that ISO treatment may not be available for stock options that become first exercisable in any calendar year to the extent the value of the shares that are the subject of the stock option exceeds $100,000, based upon the fair market value of the shares of our common stock on the option grant date.

A SAR generally permits a participant who receives it to receive, upon exercise, cash and/or shares of our common stock equal in value to the excess of the fair market value, on the date of exercise, of the shares of our common stock with respect to which the SAR is being exercised, over the exercise price of the SAR for such shares. The administrator may grant SARs in tandem with options, or independently of them. SARs that are independent of options may limit the value payable on its exercise to a percentage.

The exercise price of ISOs, Non-ISOs and SARs may not be less than 100% of the fair market value, on the grant date, of the shares of our common stock subject to the award, although the exercise price of ISOs may not be less than 110% of such fair market value for participants who own more than 10% of our shares of common stock on the grant date. To the extent vested and exercisable in accordance with the agreement granting them, a stock option or SAR may be exercised in whole or in part, and from time to time during its term, subject to earlier termination relating to a holder's termination of employment or service. With respect to stock options, unless otherwise provided in an award agreement, payment of the exercise price may be made in any of the following forms, or a combination of them; cash or check in U.S. dollars, certain shares of our common stock or a cashless exercise under a program the administrator approves.

The term over which participants may exercise stock options and SARs may not exceed 10 years from the date of grant; five years in the case of ISOs granted to employees who, at the time of grant, own more than 10% of our outstanding shares of common stock. During the term of the 2010 Plan, no participant may receive stock options and SARs that relate to more than 20% of the maximum number of shares of our common stock that are authorized for awards under the 2010 Plan.

Under the 2010 Plan, the administrator may grant restricted stock that is forfeitable until certain vesting requirements are met, may grant restricted stock units ("RSUs") which represent the right to receive shares of our common stock after certain vesting requirements are met (or cash under certain circumstances), and may grant unrestricted shares as to which the participant's interest is immediately vested. For restricted awards, the 2010 Plan provides the administrator with discretion to determine the terms and conditions under which a participant's interests in such awards become vested. The 2010 Plan also authorizes awards of deferred share units in order to permit certain directors, officers, consultants or select members of management to defer their receipt of compensation that would otherwise be payable in cash or shares of our common stock, including shares that would otherwise be issued upon the vesting of restricted stock and RSUs. Deferred share units represent a future right to receive shares of our common stock.

Under the 2010 Plan, the administrator may grant performance-based awards in the form of performance units that the administrator may, or may not, designate as "performance compensation awards" that are intended to be exempt from Section 162(m) limitations. In either case, performance units will vest and/or become payable based upon the achievement, within the specified period of time, of performance objectives applicable to the individual, us, or any affiliate. Performance units will be payable in shares of common stock, cash or some combination of the two, subject to an individual participant limit, per performance period, of $2,000,000 (determined at the time of award) and 20% of the maximum number of shares of our common stock that are authorized for awards under the 2010 Plan. The administrator will decide the length of performance periods, pursuant to the terms of the 2010 Plan.

With respect to performance compensation awards, the 2010 Plan requires that the administrator specify in writing the performance period to which the award relates, and an objective formula by which to measure whether and the extent to which the award is earned on the basis of the level of performance achieved with respect to one or more performance measures. Once established for a performance period, the performance measures and performance formula applicable to the award may not be amended or modified in a manner that would cause the compensation payable under the award to fail to constitute performance-based compensation under Section 162(m) of the Code. Under the 2010 Plan, the possible performance measures for performance compensation awards will be limited for one or more of the following, applied in total or on a per share basis: income or profit, including but not limited to basic, diluted, or adjusted earnings per share, earnings before interest, taxes, and/or other adjustments (in total or on a per share basis), basic or adjusted net income, gross margin, or similar income or profit measure; returns on equity, assets, capital, revenue or similar return measure; economic profit, economic value added, or similar measure of residual income; revenues or sales; working capital; cash usage; total stockholder return; and costs, product development, technology development, market share, research, securement of intellectual property rights, licensing, litigation, human resources, information services, mergers, acquisitions, sales of assets of affiliates or business units.

Each performance measure will be, to the extent applicable, determined in accordance with generally accepted accounting principles as consistently applied by us, or such other standard applied by the administrator and, if so determined by the administrator, and in the case of a performance compensation award, to the extent permitted under Section 162(m) of the Code, adjusted to omit the effects of extraordinary items, gain or loss on the disposal of a business segment, unusual or infrequently occurring events and transactions and cumulative effects of changes in accounting principles. Performance measures may vary from performance period to performance period, and from participant to participant, and may be established on a stand-alone basis, in tandem or in the alternative. As a condition to the issuance of shares of our common stock pursuant to awards, the 2010 Plan requires satisfaction of any applicable federal, state, local or foreign withholding tax obligations that may arise in connection with the award or the issuance of shares of our common stock.

Finally, the 2010 Plan authorizes the awarding of dividend equivalent rights to any eligible person. These rights may be independent of other awards, or attached to awards (other than stock options and SARs), and in all cases represent the participant's right to receive cash payments or additional awards related to any dividends that we declare and pay to our stockholders during the term of the dividend equivalent right. Unless an award agreement provides otherwise, the distributions attributable to dividend equivalent rights that are attached to other awards shall occur when shares of our common stock are issued to settle the underlying award.

Awards may not be sold, pledged, assigned, hypothecated, transferred or disposed of other than by will or the laws of descent and distribution, except to the extent the administrator permits lifetime transfers to charitable institutions, certain family members, or related trusts, or as otherwise approved by the administrator.

Adjustments of Awards

The administrator will equitably adjust the number of shares covered by each outstanding award, and the number of shares that have been authorized for issuance under the 2010 Plan but as to which no awards have yet been granted, or that have been returned to the 2010 Plan upon cancellation, forfeiture, or expiration of an award, as well as the price per share covered by each such outstanding award, to reflect any increase or decrease in the number of issued shares resulting from a stock split, reverse stock split, stock dividend, combination, recapitalization or reclassification of the shares of our common stock, or any other increase or decrease in the number of issued shares effected without receipt of consideration by us. In the event of any such transaction or event, the administrator may provide in substitution for any or all outstanding options under the 2010 Plan such alternative consideration, including securities of any surviving entity, as it may in good faith determine to be equitable under the circumstances and may require in connection therewith the surrender of all options so replaced. In any case, such substitution of securities will not require the consent of any person who is granted options pursuant to the 2010 Plan.

Change in Control

In addition, in the event or in anticipation of a change in control, as defined in the 2010 Plan, the administrator may at any time in its sole and absolute discretion and authority, without obtaining the approval or consent of our stockholders or any participant with respect to his or her outstanding awards, except to the extent an award provides otherwise, take one or more of the following actions: (i) arrange for or otherwise provide that each outstanding award will be assumed or substituted with a substantially equivalent award by a successor corporation or a parent or subsidiary of such successor corporation; (ii) accelerate the vesting of awards for any period, and may provide for termination of unexercised options and SARs at the end of that period, so that awards shall vest (and, to the extent applicable, become exercisable) as to the shares of our common stock that otherwise would have been unvested and provide that our repurchase rights with respect to shares of our common stock issued upon exercise of an award shall lapse as to the shares of our common stock subject to such repurchase right; or (iii) arrange or otherwise provide for payment of cash or other consideration to participants in exchange for the satisfaction and cancellation of outstanding awards.

Unless an award agreement provides otherwise, in the event a participant holding an award assumed or substituted by the successor corporation in a change in control is involuntarily terminated, as defined in the 2010 Plan, by the successor corporation in connection with, or within 12 months following consummation of, the change in control, then any assumed or substituted award held by the terminated participant at the time of termination shall accelerate and become fully vested and exercisable in full in the case of options and SARs, and any repurchase right applicable to any shares of our common stock shall lapse in full. The acceleration of vesting and lapse of repurchase rights provided for in the previous sentence shall occur immediately prior to the effective date of the participant's termination. Finally, if we dissolve or liquidate, all awards will immediately terminate, subject to the ability of our Board to exercise any discretion that the Board may exercise in the case of a change in control.

Term

The term of the 2010 Plan is 10 years from February 14, 2011. Our Board may, from time to time, amend, alter, suspend, discontinue, or terminate the 2010 Plan; provided that no amendment, suspension or termination of the 2010 Plan shall materially and adversely affect awards already granted unless it relates to an adjustment pursuant to certain transactions that change our capitalization or it is otherwise mutually agreed between the participant and the administrator. An amendment will not become effective without the approval of our stockholders if it either allows for a "re-pricing" within the meaning of federal securities laws, or increases the number of shares of common stock that may be issued under the 2010 Plan (other than changes to reflect certain corporate transactions and changes in capitalization as described above). Notwithstanding the foregoing, the administrator may amend the 2010 Plan to eliminate provisions which are no longer necessary as a result of changes in tax or securities laws or regulations, or in the interpretation thereof.

2006 Omnibus Securities and Incentive Plan, as Amended

Background

Our 2006 Plan was adopted by our Board, and approved by our stockholders, in January 2006. The 2006 Plan was last amended on June 2, 2010. The 2006 Plan provides for the grant of incentive stock options, within the meaning of Section 422 of the Code, to our employees and any parent or subsidiary corporations' employees, and for the grant of nonstatutory stock options, restricted and unrestricted stock awards, stock appreciation rights, performance stock awards and other stock awards to our employees, directors and consultants and any parent or subsidiary corporations' employees, directors and consultants.

After the adoption of our 2010 Plan in February 2011, no further option grants will be made under the 2006 Plan and, to the extent outstanding awards under the 2006 Plan are forfeited or lapse unexercised, the shares of common stock subject to such awards will be available for future issuance under the 2010 Plan. However, our 2006 Plan will continue to govern the terms and conditions of outstanding awards granted thereunder. At December 31, 2014, a total of 1,612,589 shares of Gevo common stock were reserved for issuance upon the exercise of stock options outstanding under the 2006 Plan.

Administration

Our Board, or a committee thereof appointed by our Board, has the authority to administer the 2006 Plan and the awards granted under it. Under the 2006 Plan, the administrator has the power to determine the terms of the awards, including the employees, directors and consultants who will receive awards, the exercise price, the number of shares subject to each award, the vesting schedule and exercisability of awards, and the form of consideration payable upon exercise. Our Board may alter, amend or terminate the 2006 Plan at any time.

However, no alteration or amendment can be made which would materially and adversely affect the rights of a holder of an outstanding award without the consent of such holder. Upon adoption of our 2010 Plan, no additional awards can be made from our 2006 Plan and the 171,931 shares of our common stock that had been available, but not awarded, under our 2006 Plan were cancelled.

Stock Options

In general, the duration of a stock option granted under the 2006 Plan cannot exceed 10 years, and the exercise price of a stock option cannot be less than 100% of the fair market value of our common stock on the date of grant. However, no stock option may be granted to any person who, at the time of the grant, owns or is deemed to own stock representing more than 10% of our total combined voting power or the total combined voting power of any of our affiliates unless (i) the option exercise price is at least 110% of the fair market value of our common stock on the date of grant and (ii) the term of the stock option does not exceed five years from the date of grant.

Incentive stock options may be granted only to our employees and any parent or subsidiary corporations' employees. The aggregate fair market value, determined at the time of grant, of shares of our common stock with respect to which incentive stock options are exercisable for the first time by an option holder during any calendar year under all of our stock plans may not exceed $100,000.

If an employee's or director's service relationship with us terminates other than by disability or death, or if a consultant's service relationship with us terminates other than by death, the optionee may exercise the vested portion of any option during a period of time not to exceed 60 days following the termination of service, or such longer period as specified in the optionee's option agreement. If an employee's or director's service relationship with us terminates by disability or death, or if a consultant's service relationship with us terminates by death, the optionee, or such optionee's designated beneficiary, as applicable, may exercise the vested portion of any option during a period of time not to exceed six months following the termination of service, or such longer period as specified in the optionee's option agreement. Shares of common stock representing any unvested portion of the option on the date of termination shall immediately cease to be issuable and shall become available for issuance under the 2006 Plan. If, after termination, the optionee does not exercise the option within the time period specified, the option shall terminate and the shares of common stock covered by such option will become available for issuance under the 2006 Plan.

Transferability

Unless the administrator provides otherwise, the 2006 Plan generally does not allow for the transfer of awards under the 2006 Plan other than by will, the laws of descent and distribution or, in certain circumstances, by gift or domestic relations order to family members.

Corporate Transactions

If there is a transaction or event which changes our stock that does not involve our receipt of consideration, the administrator of the 2006 Plan shall, as appropriate, adjust the class and the maximum number of shares subject to the 2006 Plan and/or the class, number of securities and exercise price of shares subject to outstanding awards. In the event of any other transaction or event which changes our stock, including, without limitation, a recapitalization, reorganization, merger, or consolidation, the administrator may, in its discretion, make such adjustments to the 2006 Plan, any outstanding awards under the 2006 Plan and any award agreements evidencing such awards as it shall deem appropriate, including, without limitation, adjustments to the number and exercise price of shares or other consideration subject to outstanding awards.

Employee Stock Purchase Plan

Background

We have adopted and implemented an employee stock purchase plan designed to enable eligible employees to periodically purchase shares of our common stock at a discount. Purchases will initially be accomplished through participation in discrete semi-annual offering periods, at purchase prices that are 15% below the lesser of the fair market value of our common stock on (i) the first trading day of the applicable purchase period and (ii) the last trading day of the applicable purchase period. Our employee stock purchase plan, which is intended to qualify as an employee stock purchase plan under Section 423 of the Code, received stockholder approval on February 4, 2011.

Share Reserve

We have reserved 1,285,643 shares of our common stock for issuance under our employee stock purchase plan, of which 1,150,939 shares were available for future issuance as of December 31, 2014.

Administration

Our Compensation Committee will administer our employee stock purchase plan. Employees who are 5% stockholders, or would become 5% stockholders as a result of their participation in our employee stock purchase plan, are ineligible to participate in our employee stock purchase plan. We may impose additional restrictions on eligibility as well. Under our employee stock purchase plan, eligible employees will be able to acquire shares of our common stock by accumulating funds through payroll deductions. Our eligible employees will be able to select a rate of payroll deduction between 1% and 10% of their eligible cash compensation. We will also have the right to amend or terminate our employee stock purchase plan, except that, subject to certain exceptions, no such action may adversely affect any outstanding rights to purchase stock under the plan. Our employee stock purchase plan will terminate on the tenth anniversary of our initial public offering, unless it is terminated earlier by our Board.

Purchase Rights

When an offering period commences, our employees who meet the eligibility requirements for participation in that offering period will be automatically granted a non-transferable option to purchase shares in that offering period. An employee's participation will automatically end upon termination of employment for any reason.

No participant will have the right to purchase our shares at a rate which, when aggregated with purchase rights under all our employee stock purchase plans that are also outstanding in the same calendar year(s), have a fair market value of more than $25,000, determined on the basis of the fair market value of such stock on the date or dates such rights are granted to the participant, for each calendar year in which such right is outstanding. The purchase price for shares of our common stock purchased under our employee stock purchase plan will initially be 85% of the lesser of the fair market value of our common stock on (i) the first trading day of the applicable offering period and (ii) the last trading day of each purchase period in the applicable offering period.

Change in Control

In the event of a corporate transaction (as defined in our employee stock purchase plan), the offering period for such purchase rights will be shortened and end on a new purchase date immediately prior to the consummation of the corporate transaction, and no new offering period will commence.

401(k) Plan

Effective January 2006, we implemented a 401(k) plan covering certain employees. Currently, all of our full-time employees over the age of 21 are eligible to participate in the 401(k) plan after completion of three months of service, subject to quarterly entry dates. Under the 401(k) plan, eligible employees may elect to reduce their current compensation by up to the prescribed annual limit and contribute these amounts to the 401(k) plan. In 2011 and 2012, we matched 100% of each eligible employee's contributions, up to 5% of each eligible employee's compensation. Effective January 1, 2013, we ceased to match employee contributions to the 401(k) plan. The 401(k) plan is intended to qualify under Section 401 of the Code so that contributions by employees to the 401(k) plan, and income earned on the 401(k) plan contributions, are not taxable to employees until withdrawn from the 401(k) plan. The trustees under the 401 (k) plan, at the direction of each participant, invest the 401(k) plan funds in selected investment options.

COMPENSATION COMMITTEE REPORT

The Compensation Committee has reviewed and discussed with management the "Compensation Discussion and Analysis" contained in this Report. Based on this review and discussion, the Compensation Committee recommended to our Board that the Compensation Discussion and Analysis be included in this Report and in the Company's proxy statement.

Respectfully submitted,

COMPENSATION COMMITTEE

Shai Weiss, Chair
Ganesh Kishore, Ph.D.
Gary W. Mize

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters
Security Ownership of Certain Beneficial Owners and Management

The following table sets forth information about the beneficial ownership of our common stock as of Feburary 3, 2014 by:

- each person, or group of affiliated persons, known to us to be the beneficial owner of more than 5% of our common stock;

- each named executive officer and each director; and
- all of our executive officers and directors as a group.

Unless otherwise noted below, the address of each beneficial owner listed on the table is c/o Gevo, Inc., 345 Inverness Drive South, Building C, Suite 310, Englewood, Colorado 80112. We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the tables below have sole voting and investment power with respect to all shares of common stock that they beneficially own, subject to applicable community property laws.

This table is based upon information supplied by our officers, directors and the Schedules 13D and 13G that have been filed with the SEC, and the information is not necessarily indicative of beneficial ownership for any other purpose. Under such rules, beneficial ownership includes any shares as to which the individual or entity has sole or shared voting power or investment power and any shares as to which the individual or entity has the right to acquire beneficial ownership within 60 days of February 3, 2014 through the exercise of any stock option or other right. The inclusion of such shares, however, does not constitute an admission that the named stockholder is a direct or indirect beneficial owner of, or receives the economic benefit from, such shares and we did not deem these shares outstanding for the purpose of computing the percentage ownership of any other person. Applicable percentages are based on 132,887,021 shares of common stock outstanding on February 3, 2014.

Name and address of beneficial owner	Number of shares beneficially owned	Percentage of shares beneficially owned	
5% Stockholders & Affiliates:			
WB Gevo, Ltd. (1)	22,537,983	14.5	%
Hal Mintz and Sabby Management, LLC(2)	12,030,278	9.1	%
Vinod Khosla and/or affiliates of Khosla Ventures(3)	11,685,495	8.6	%
Total Energy Ventures International(4)	6,894,111	5.1	%
Named executive officers and directors:			
Patrick R. Gruber, Ph.D.(5)	1,614,769	1.2	%
Christopher Ryan, Ph.D.(6)	671,078	*	
Brett Lund, J.D., M.B.A.(7)	241,967	*	
Mike Willis(8)	245,692	*	
Greg Roda(9)	108,352	*	
Shai Weiss(10)	3,560,482	2.7	%
Ganesh M. Kishore, Ph.D.(11)	2,604,884	2.0	%
Gary W. Mize(12)	181,068	*	
Ruth I. Dreessen(13)	176,749	*	
Andy Marsh	0	*	
All executive officers and directors as a group (ten persons)	9,405,041	7.0	%

*Represents beneficial ownership of less than 1% of the outstanding shares of our common stock.

(1)

Represents shares that would be issued to WB Gevo, Ltd. upon conversion of the Company’s 10.0% Convertible Senior Secured Notes due 2017 (the “2017 Notes”). On January 29, 2015, the Company commenced a conversion forbearance period in accordance with the terms of the 2017 Notes and unreserved all shares of Company common stock previously reserved for issuance upon conversion of the 2017 Notes pursuant to the terms and conditions of the indenture governing the 2017 Notes. Although the 2017 Notes are not convertible into shares of Company common ctock during the conversion forbearance period, this period can be terminated at any time by the Company upon notice to the trustee that it has a sufficient number of authorized and unissued shares of Company common stock to permit conversion of all of the outstanding 2017 Notes . The address of WB Gevo, Ltd. is 3033 Excelsior Boulevard, Suite 300, Minneapolis, MN, 55416.

(2) Based in part on information contained in a Schedule 13G filed with the SEC by Sabby Healthcare Master Fund, Ltd., a Cayman Island company (“Sabby Healthcare”), Sabby Volatility Warrant Master Fund, Ltd., a Cayman Island company (“Sabby Volatility”), Sabby Management, LLC, a Delaware limited liability company (“Sabby Management”) and Hal Mintz on January 30, 2015. Sabby Healthcare and Sabby Volatility beneficially own 6,423,078 and 5,607,200 shares of

Company common stock, respectively, representing approximately 4.83% and 4.22% of the Company common stock, respectively. Sabby Management and Hal Mintz each beneficially own 12,030,278 shares of Company common stock, representing approximately 9.05% of the Company common stock. Sabby Management and Hal Mintz do not directly own any shares of Company common stock, but each indirectly owns 12,030,278 shares of Company common stock. Sabby Management indirectly owns 12,030,278 shares of Company common stock because it serves as the investment manager of Sabby Healthcare and Sabby Volatility. Mr. Mintz indirectly owns 12,030,278 shares of Company common stock in his capacity as manager of Sabby Management. The address for Sabby Management and Mr. Mintz is 10 Mountainview Road, Suite 205, Upper Saddle River, New Jersey 07458. The address for Sabby Healthcare and Sabby Volatility is c/o Ogier Fiduciary Services (Cayman) Limited, 89 Nexus Way, Camana Bay, Grand Cayman KY1-9007, Cayman Islands.

(3) Includes: (i) 4,966,917 shares held by Khosla Ventures I, LP (“KV I”); (ii) 3,143,174 shares held by Khosla Ventures III, LP (“KV III”); (iii) 1,111,111 shares held by KFT Trust, Vinod Khosla as Trustee (“KFT”); (iv) 77,142 shares held by VK Services, LLC; (v) 1,111,111 shares of common stock issuable within 60 days of March 31, 2014 upon exercise of warrants held by KV III; (vi) 1,111,111 shares of common stock issuable within 60 days of March 31, 2014 upon the exercise of warrants held by KFT; (vii) 6,167 shares of common stock issuable to Samir Kaul pursuant to stock options exercisable within 60 days of March 31, 2014; and (viii) 164,929 shares which are held by members or affiliates of members of Khosla Ventures Associates I, LLC (including Mr. Kaul), subject to the right of Khosla Ventures I, LP to exercise voting and investment control over such shares. Khosla Ventures Associates I, LLC ("KVA I") is the general partner of KV I and Khosla Ventures Associates III, LLC ("KVA III") is the general partner of KV III. Mr. Kaul is a member of each of KVA I and KVA III, and may be held to have voting and dispositive power over the shares beneficially held by Khosla Ventures and its affiliates. Mr. Kaul disclaims beneficial ownership of such shares except to the extent of his pecuniary interest therein. The address for Mr. Kaul, Mr. Khosla and the entities affiliated with Khosla Ventures is 2128 Sand Hill Road, Menlo Park, CA 94025.

(4) Includes 2,222,222 shares issuable pursuant to common stock warrants exercisable within 60 days of March 31, 2014. The address for Total Energy Ventures International is 2, place Jean Millier — La Défense 6, 92078 Paris la Défense Cedex France.

(5) Includes 1,292,878 shares issuable pursuant to stock options exercisable within 60 days of February 3, 2015.

(6) Includes 339,356 shares issuable pursuant to stock options exercisable within 60 days of February 3, 2015.

(7) Includes 175,613 shares issuable pursuant to stock options exercisable within 60 days of February 3, 2015.

(8) Includes 130,451 shares issuable pursuant to common stock warrants and stock options exercisable within 60 days of February 3, 2015.

(9) Includes 73,782 shares issuable pursuant to common stock warrants and stock options exercisable within 60 days of February 3, 2015.

(10) Includes 388,889 shares issuable pursuant to common stock warrants exercisable within 60 days of February 3, 2015. Shai Weiss is a member of the board of directors of VGF I Ltd., which is the general partner of VGF Partners I, L.P., the general partner of Virgin Green Fund I, L.P. (the “Fund’) and may be held to have voting and dispositive power over the shares beneficially held by the Fund. Mr. Weiss disclaims beneficial ownership of the shares held by the Fund, except to the extent of his pecuniary interest therein.

(11) Includes 443,169 shares issuable pursuant to common stock warrants and stock options exercisable within 60 days of February 3, 2015. Ganesh M. Kishore, Ph.D. is the Chief Executive Officer of Malaysian Life

Sciences and may be held to have voting and dispositive power over the shares beneficially held by Malaysian Life Sciences. Dr. Kishore disclaims beneficial ownership of the shares held by Malaysian Life Sciences, except to the extent of his pecuniary interest therein. The address for Malaysian Life Sciences is No. 36-01, level Menara Dion, 27, Jalan Sultan Ismail, 50250 Kuala Lumpur, Malaysia.

(12) Includes 62,183 shares issuable pursuant to common stock warrants and stock options exercisable within 60 days of February 3, 2015.

(13) Includes 51,355 shares issuable pursuant to common stock warrants and stock options exercisable within 60 days of February 3, 2015.

Securities Authorized for Issuance under Equity Compensation Plans

The following table provides certain information with respect to our equity compensation plans in effect as of December 31, 2014:

Equity Compensation Plans Approved by Stockholders	Number of Securities to be Issued Upon Exercise of Outstanding Options and Rights	Weighted-Average Exercise Price of Outstanding Options and Rights	Number of Securities Remaining Available for Issuance Under Equity Compensation Plans (excluding securities reflected in column (a)
2010 Plan and 2006 Plan (1)	3,524,413	$ 3.72	3,094,413
ESPP	-	$ -	1,150,939
Equity Compensation Plans not Approved by Stockholders'	-	-	-
Total	3,524,413	$ 3.72	4,245,35

(1) After the adoption of our 2010 Plan in February 2011, no further option grants will be made under the 2006 Plan and, to the extent outstanding awards under the 2006 Plan are forfeited or lapse unexercised, the shares of common stock subject to such awards will be available for future issuance under the 2010 Plan.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Policies and Procedures for Related Party Transactions

The Board conducts an appropriate review of and oversees all related party transactions on a continuing basis and reviews potential conflict of interest situations where appropriate. The Board has not adopted formal standards to apply when it reviews, approves or ratifies any related party transaction. However, the Board has followed the following standards: (i) all related party transactions must be fair and reasonable to the Company and on terms comparable to those reasonably expected to be agreed to with independent third parties for the same goods and/or services at the time they are authorized by the Board and (ii) all related party transactions should be authorized, approved or ratified by the affirmative vote of a majority of the directors who have no interest, either directly or indirectly, in any such related party transaction.

Transactions with Related Persons

Except as set forth below, there have been no transactions, since January 1, 2013, to which we were a party or will be a party, in which the amount involved exceeded or will exceed $120,000 and in which a director, executive officer, holder of more than 5% of our common stock or any member of their immediate family had or will have a direct or indirect material interest, other than compensation arrangements that are described under “Employment Arrangements” and “Director Compensation” above.

Indemnification Agreements with Directors and Executive Officers

We have entered into indemnification agreements with our directors and executive officers under which we agreed to indemnify those individuals under the circumstances and to the extent provided for in the agreements, for expenses, damages, judgments, fines, settlements and any other amounts they may be required to pay in actions, suits or proceedings which they are or may be made a party or threatened to be made a party by reason of their position as a director, officer or other agent of ours, and otherwise to the fullest extent permitted under Delaware law and our Bylaws. We also have an insurance policy covering our directors and executive officers with respect to certain liabilities, including liabilities arising under the Securities Act or otherwise. We believe that these provisions and insurance coverage are necessary to attract and retain qualified directors, officers and other key employees.

Independence of Directors

As required by the listing standards of NASDAQ, a majority of the members of our Board must qualify as “independent,” as affirmatively determined by our Board. Our Board consults with our legal counsel to ensure that its determinations are consistent with all relevant securities and other laws and regulations regarding the definition of “independent,” including those set forth in the applicable NASDAQ listing standards.

Our Board has unanimously determined that six of our current directors, constituting a majority of the Board, are “independent” directors as that term is defined by NASDAQ Marketplace Rule 5605(a)(2). In making this determination, the Board has affirmatively determined, considering broadly all relevant facts and circumstances regarding each independent director, that none of the independent directors has a material relationship with us (either directly or as a partner, stockholder, officer or affiliate of an organization that has a relationship with us). In addition, based upon such standards, the Board determined that Dr. Patrick Gruber, who currently serves as a Class I director, is not "independent" because he is our Chief Executive Officer.

Additionally, the Board has determined that each member of the Company's Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee meets the applicable rules and regulations regarding "independence" and that each member is free of any relationship that would interfere with his or her individual exercise of independent judgement with regard to the Company.

Item 14. Principal Accountant Fees and Services

Principal Accountant Fees and Services

The following table presents the aggregate fees billed or accrued for professional services rendered by Deloitte & Touche LLP during the last two fiscal years:

Type	2014	2013
Audit Fees	$433,000	$415,000
Tax Fees	17,000	25,000
Total Fees	$450,000	$440,000

Audit Fees — This category includes the aggregate fees billed or accrued for each of the last two fiscal years for professional services rendered by the independent auditors for the audit of the Company's annual financial statements, review of financial statements included in the Company's Registration Statement on Form S-3 and quarterly reports filed with the SEC and services that are normally provided by the independent auditors in connection with other statutory and regulatory filings made by the Company during those fiscal years.

Tax Fees — This category includes the aggregate fees billed in each of the last two years for professional services rendered by the independent auditors for tax compliance, tax planning and tax advice.

Audit Committee's Pre-Approval Policies and Procedures

Before our independent registered public accounting firm is engaged by us to render audit or non-audit services, each such engagement is approved by our Audit Committee. From time to time, our Audit Committee may pre-approve specified types of services that are expected to be provided to us by our registered public accounting firm during the next 12 months. Any such pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount.

Our Audit Committee may delegate the authority to approve any audit or non-audit services to be provided to us by our registered public accounting firm to one or more subcommittees (including a subcommittee consisting of a single member). Any approval of services by a subcommittee of our Audit Committee pursuant to this delegated authority is reported at the next meeting of our Audit Committee.

PART IV

Item 15. Exhibits and Financial Statement Schedules
(a)(1) Financial Statements

The following consolidated financial statements are included:

(a)(2) Financial Statement Schedules

All financial statement schedules have been omitted because they are not applicable or are not required, or because the information required to be set forth therein is included in the consolidated financial statements or notes thereto.

(a)(3) Exhibits

Exhibit Number	Description	Previously Filed Form	File No.	Filing Date	Exhibit	Filed Herewith
2.1†*	Acquisition Agreement by and among Gevo Development, LLC, Agri-Energy, LLC, Agri-Energy Limited Partnership, CORN-er Stone Ethanol Management, Inc. and CORN-er Stone Farmers' Cooperative, dated August 5, 2010.	S-1	333-168792	November 4, 2010	2.1	
2.2*	Equity Purchase Agreement, by and among Gevo, Inc., CDP Gevo, LLC, Gevo Development, LLC, Michael A. Slaney and David N. Black, dated August 5, 2010.	S-1	333-168792	October 1, 2010	2.2	
3.1	Amended and Restated Certificate of Incorporation of Gevo, Inc.	10-K	001-35073	March 29, 2011	3.1	
3.2	Certificate of Amendment to the Amended and Restated Certificate of Incorporation of Gevo, Inc.	8-K	001-35073	June 10, 2013	3.1	
3.3	Certificate of Amendment to Amended and Restated Certificate of Incorporation of Gevo, Inc.	8-K	001-35073	July 9, 2014	3.1	
3.4	Amended and Restated Bylaws of Gevo, Inc.	10-K	001-35073	March 29, 2011	3.2	
4.1	Form of the Gevo, Inc. Common Stock Certificate.	S-1	333-168792	January 19, 2011	4.1	
4.2	Fifth Amended and Restated Investors' Rights Agreement, dated March 26, 2010.	S-1	333-168792	August 12, 2010	4.2	
4.3†	Stock Issuance and Stockholder's Rights Agreement, by and between Gevo, Inc. and California Institute of Technology, dated July 12, 2005.	S-1	333-168792	August 12, 2010	4.3	

4.4	Amended and Restated Warrant to purchase shares of Common Stock issued to CDP Gevo, LLC, dated September 22, 2010.	S-1	333-168792	October 1, 2010	4.4
4.5	Warrant to purchase shares of Preferred Stock, issued to Virgin Green Fund I, L.P., dated January 18, 2008.	S-1	333-168792	August 12, 2010	4.9
4.6	Plain English Warrant Agreement No. 0647-W-01, by and between Gevo, Inc. and TriplePoint Capital LLC, dated August 5, 2010.	S-1	333-168792	October 1, 2010	4.11
4.7	Plain English Warrant Agreement No. 0647-W-02, by and between Gevo, Inc. and TriplePoint Capital LLC, dated August 5, 2010.	S-1	333-168792	October 1, 2010	4.12
4.8	Plain English Warrant Agreement No. 0647-W-03, by and between Gevo, Inc. and TriplePoint Capital LLC, dated October 20, 2011.	8-K	001-35073	October 26, 2011	10.7
4.9	First Amendment to Plain English Warrant Agreement, relating to Warrant Number 0647-W-01, dated December 11, 2013, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	December 12, 2013	4.1
4.10	First Amendment to Plain English Warrant Agreement, relating to Warrant Number 0647-W-02, dated December 11, 2013, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	December 12, 2013	4.2

Exhibit Number	Description	Previously Filed Form	File No.	Filing Date	Exhibit	Filed Herewith
4.11	First Amendment to Plain English Warrant Agreement, relating to Warrant Number 0647-W- 03, dated December 11, 2013, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	December 12, 2013	4.3	
4.12	Common Stock Warrant, issued to Genesis Select Corporation, dated June 6, 2013.	10-Q	001-35073	August 14, 2013	4.9	
4.13	Common Stock Unit Warrant Agreement, dated December 16, 2013, by and between Gevo, Inc. and the American Stock Transfer & Trust Company, LLC.	8-K	001-35073	December 12, 2013	4.1	
4.14	Indenture, dated as of July 5, 2012, between Gevo, Inc. and Wells Fargo Bank, National Association, as trustee.	8-K	001-35073	July 5, 2012	4.1	
4.15	First Supplemental Indenture, dated as of July 5, 2012, to the Indenture dated as of July 5, 2012, by and among Gevo, Inc. and Wells Fargo Bank, National Association, as trustee.	8-K	001-35073	July 5, 2012	4.2	
4.16†	Indenture by and among Gevo, Inc., the guarantors named on the signature page thereto and Wilmington Savings Fund Society, FSB, dated June 6, 2014 (for 10% Convertible Senior Secured Notes due 2017).	8-K	001-35073	June 12, 2014	4.1	
4.17	First Supplemental Indenture, dated July 31, 2014, by and among Gevo, Inc., the guarantors party thereto, Wilmington Savings Fund Society, FSB, as trustee, and WB Gevo, Ltd., as Requisite Holder.	8-K	001-35073	August 1, 2014	4.1	
4.18	Second Supplemental Indenture and First Amendment to Pledge and Security Agreement, dated January 28, 2015, by and among Gevo, Inc., the guarantors party thereto, Wilmington Savings Fund Society, FSB, as trustee, and WB Gevo, Ltd.	8-K	001-35073	January 30, 2015	4.1	
4.19†	Exchange and Purchase Agreement by and among Gevo, Inc., Gevo Development, LLC, Agri-Energy, LLC, WB Gevo, Ltd., Whitebox Advisors LLC, in its capacity as	8-K	001-35073	May 23, 2014	4.1	

	administrative agent, and Whitebox Advisors LLC, in its capacity as representative of the Purchaser, and each other party who thereafter executes and delivers a Joinder Agreement, dated May 9, 2014.				
4.20	Registration Rights Agreement by and among Gevo, Inc., WB Gevo, Ltd., and each other party who thereafter executes and delivers a Joinder Agreement, dated May 9, 2014.	8-K	001-35073	May 15, 2014	4.2
4.21	Common Stock Unit Warrant Agreement, dated August 5, 2014, by and between Gevo, Inc. and the American Stock Transfer & Trust Company, LLC.	8-K	001-35073	August 6, 2014	4.1
4.22	2015 Common Stock Unit Series A Warrant Agreement, dated August 5, 2014, by and between Gevo, Inc. and the American Stock Transfer & Trust Company, LLC.	8-K	001-35073	February 4, 2015	4.1

Exhibit Number	Description	Previously Filed Form	File No.	Filing Date	Exhibit	Filed Herewith
4.23	2015 Common Stock Unit Series B Warrant Agreement, dated August 5, 2014, by and between Gevo, Inc. and the American Stock Transfer & Trust Company, LLC.	8-K	001-35073	February 4, 2015	4.2	
10.1	Plain English Growth Capital Loan and Security Agreement, by and between Gevo Inc. and TriplePoint Capital, LLC, dated August 5, 2010.	S-1	333-168792	October 21, 2010	10.23	
10.2	First Amendment to Plain English Growth Capital Loan and Security Agreement, by and between Gevo Inc. and TriplePoint Capital, LLC, dated August 5, 2010.	8-K	001-35073	October 26, 2011	10.2	
10.3	Plain English Growth Capital Loan and Security Agreement, by and between Gevo Development, LLC and TriplePoint Capital, LLC, dated August 5, 2010.	S-1	333-168792	October 21, 2010	10.24	
10.4	Joinder Agreement and First Amendment, by and among Gevo Development, LLC, Agri-Energy, LLC and TriplePoint Capital, LLC dated September 22, 2010, to the Plain English Growth Capital Loan and Security Agreement, by and between Gevo Development, LLC and TriplePoint Capital, LLC dated August 5, 2010.	S-1	333-168792	October 21, 2010	10.25	
10.5	Amended and Restated Plain English Growth Capital Loan and Security Agreement, by and between Agri-Energy, LLC and TriplePoint Capital LLC, dated October 20, 2011.	10-K	001-05073	February 28, 2012	10.6	
10.6	Plain English Limited Recourse Continuing Guaranty, by Gevo Development, LLC in favor of TriplePoint Capital LC dated as of October 20, 2011.	8-K	001-35073	October 26, 2011	10.4	

10.7	Amended and Restated Limited Recourse Membership Interest Pledge Agreement, by Gevo Development, LLC in favor of TriplePoint Capital LLC, dated as of October 20, 2011.	8-K	001-35073	October 26, 2011	10.4
10.8	First Amendment to Plain English Security Agreement, by and between Gevo, Inc. and TriplePoint Capital LLC, dated October 20, 2011.	8-K	001-35073	October 26, 2011	10.5
10.9	First Amendment to Plain English Security Agreement, by and between Agri-Energy, LLC and TriplePoint Capital LLC, dated October 20, 2011.	8-K	001-35073	October 26, 2011	10.6
10.10†	Commercialization Agreement, by and between Gevo, Inc. and ICM, Inc., dated October 16, 2008.	S-1	333-168792	August 12, 2010	10.2
10.11†	Development Agreement, by and between Gevo, Inc. and ICM, Inc., dated October 16, 2008.	S-1	333-168792	November 4, 2010	10.3
10.12	Amendment No. 1, effective July 1, 2010, to the Development Agreement, by and between Gevo, Inc. and ICM, Inc., dated October 16, 2008.	S-1	333-168792	October 1, 2010	10.25

Exhibit Number	Description	Previously Filed Form	File No.	Filing Date	Exhibit	Filed Herewith
10.13†	Ethanol Purchasing and Marketing Agreement, by and between C&N Ethanol Marketing Corporation and Agri-Energy Limited Partnership, dated April 1, 2009.	S-1	333-168792	November 4, 2010	10.26	
10.14	Exclusive Supply Agreement, by and among Gevo, Inc., LANXESS Inc. and LANXESS Corporation, dated January 14, 2011.	S-1	333-168792	January 19, 2011	10.32	
10.15†	License Agreement, by and between Gevo, Inc. and Cargill Incorporated, effective February 19, 2009.	S-1	333-168792	August 12, 2010	10.4	
10.16†	Exclusive License Agreement, by and between Gevo, Inc. and The Regents of the University of California, dated September 6, 2007, as amended.	S-1	333-168792	August 12, 2010	10.5	
10.17†	License Agreement, by and between Gevo, Inc. and the California Institute of Technology, dated July 12, 2005, as amended.	S-1	333-168792	November 4, 2010	10.6	
10.18	Amendment No. 4, dated October 1, 2010, to the License Agreement, by and between Gevo, Inc. and the California Institute of Technology, dated July 12, 2005.	S-1	333-168792	October 21, 2010	10.10	
10.19†	First Amended and Restated Limited Liability Company Agreement of Gevo Development, LLC, dated August 5, 2010.	S-1	333-168792	November 4, 2010	10.8	
10.20†	Isobutanol Joint Venture Agreement, by and between Gevo Development, LLC and Redfield Energy, LLC, dated June 15, 2011.	10-Q	001-35073	August 3, 2011	10.1	
10.21†	Second Amended and Restated Operating Agreement of Redfield Energy, LLC, dated June 13, 2011.	10-Q	001-35073	August 3, 2011	10.2	

10.22	International Off-Take and Distribution Agreement, by and between Gevo, Inc. and Sasol Chemical Industries Limited, dated July 29, 2011.	10-Q	001-35073	November 2, 2011	10.2
10.23#	2006 Omnibus Securities and Incentive Plan.	S-1	333-168792	August 12, 2010	10.11
10.24#	Form of Stock Option Agreement under the 2006 Omnibus Securities and Incentive Plan.	S-1	333-168792	August 12, 2010	10.13
10.25#	Gevo, Inc. Amended and Restated 2010 Stock Incentive Plan.	8-K	001-35073	June 6, 2013	10.1
10.26#	Form of Restricted Stock Unit Agreement under the 2010 Stock Incentive Plan.	S-1	333-168792	January 19, 2011	10.15
10.27#	Form of Restricted Stock Award Agreement under the 2010 Stock Incentive Plan.	10-K	001-35073	March 29, 2011	10.21
10.28#	Form of Stock Option Award Agreement under the 2010 Stock Incentive Plan.	10-K	001-35073	March 29, 2011	10.22
10.29#	Employee Stock Purchase Plan.	S-8	333-172771	March 11, 2011	4.7
10.30#	Gevo, Inc. Executive Health Management Plan.	10-Q	001-35073	November 2, 2011	10.1

Exhibit Number	Description	Previously Filed Form	File No.	Filing Date	Exhibit	Filed Herewith
10.31#	Form of Indemnification Agreement between Gevo, Inc. and its directors and officers.	S-1	333-168792	January 19, 2011	10.33	
10.32#	Employment Agreement, by and between Gevo, Inc. and Patrick Gruber, dated June 4, 2010.	S-1	333-168792	November 4, 2010	10.14	
10.33#	Amendment Agreement, by and between Gevo, Inc. and Patrick Gruber, dated December 21, 2011.	8-K	001-35073	December 27, 2011	10.1	
10.34#	Second Amendment Agreement, by and between Gevo, Inc. and Patrick Gruber, dated February 16, 2015	8-K	001-35073	February 17, 2015	10.1	
10.35#	Employment Agreement, by and between Gevo, Inc. and Mark Smith, dated June 4, 2010.	S-1	333-168792	November 4, 2010	10.15	
10.36#	Employment Agreement, by and between Gevo, Inc. and Christopher Ryan, dated June 4, 2010.	S-1	333-168792	November 4, 2010	10.16	
10.37#	Employment Agreement, by and between Gevo, Inc. and Brett Lund, dated June 4, 2010.	S-1	333-168792	November 4, 2010	10.18	
10.38#	Amendment No. 1 to Employment Agreement, by and between Gevo, Inc. and Brett Lund, dated April 5, 2012.	8-K	001-35073	April 9, 2012	10.1	
10.39#	Offer Letter, by and between Gevo, Inc. and Mike Willis, dated April 10, 2014.	10-K	001-35073	April 15, 2014	10.38	
10.40#	Offer Letter, by and between Gevo, Inc. and Greg Roda, effective as of September 5, 2013.	10-K	001-35073	April 15, 2014	10.39	
10.41		8-K	001-35073	July 5, 2012	10.1	

	Second Amendment to the Plain English Security Agreement, made and entered into as of June 29, 2012, by and among Gevo, Inc. and TriplePoint Capital LLC.				
10.42	Second Amendment to Plain English Growth Capital Loan and Security Agreement, made and entered into as of June 29, 2012, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	July 5, 2012	10.2
10.43	First Amendment to Amended and Restated Plain English Growth Capital Loan and Security Agreement, made and entered into as of June 29, 2012, by and between Agri-Energy, LLC and TriplePoint Capital LLC.	8-K	001-35073	July 5, 2012	10.3
10.44	Lease of Space between Hines REIT 345 Inverness Drive, LLC and Gevo, Inc.	10-K	001-35073	March 25, 2013	10.48
10.45	Fourth Amendment to Plain English Security Agreement, dated December 11, 2013, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	December 12, 2013	10.1
10.46	Second Amendment to Amended and Restated Plain English Growth Capital Loan and Security Agreement, dated December 11, 2013, by and among Gevo, Inc., Agri-Energy, LLC and TriplePoint Capital LLC.	8-K	001-35073	December 12, 2013	10.2

Exhibit Number	Description	Form	Previously Filed File No.	Filing Date	Exhibit	Filed Herewith
10.47	Plain English Intellectual Property Security Agreement, dated December 11, 2013, between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	December 12, 2013	10.3	
10.48†	Term Loan Agreement by and among Gevo, Inc., the Guarantor party thereto from time to time, the Lenders party thereto from time to time, and Whitebox Advisors LLC, as administrative agent for such Lenders, dated May 9, 2014.	8-K	001-35073	May 15, 2014	10.1	
10.49	Consent Under and Third Amendment to Amended and Restated Plain English Growth Capital Loan and Security Agreement and Omnibus Amendment to Loan Documents, by and among Gevo, Inc., Gevo Development, LLC, Agri-Energy, LLC and TriplePoint Capital LLC, dated May 9, 2014.	8-K	001-35073	May 15, 2014	10.2	
10.50	Consent and Second Amendment to Term Loan Agreement, dated July 31, 2014, by and among Gevo, Inc., the guarantors party thereto, the lender party thereto, and WB Gevo, Ltd., as administrative agent.	8-K	001-35073	August 1, 2014	10.1	
10.51	Fourth Amendment to Amended and Restated Plain English Growth Capital Loan and Security Agreement, dated July 31, 2014, by and among Gevo, Inc., Agri-Energy, LLC and TriplePoint Capital LLC.	8-K	001-35073	August 1, 2014	10.2	
10.52	Fifth Amendment to Plain English Security Agreement, dated July 31, 2014, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	August 1, 2014	10.3	
10.53	Consent Under and Fifth Amendment to Amended and Restated Plain English Growth Capital Loan and Security Agreement, dated January 28, 2015, by and among Gevo, Inc., Agri-Energy, LLC and TriplePoint Capital LLC.	8-K	001-35073	January 30, 2015	10.1	
10.54	Sixth Amendment to Plain English Security Agreement, dated January 28, 2015, by and between Gevo, Inc. and TriplePoint Capital LLC.	8-K	001-35073	January 30, 2015	10.2	
10.55	Amendment No. 1 to the First Amended and Restated Limited Liability Company Agreement of Gevo Development, LLC, dated May 9, 2014.	8-K	001-35073	August 14, 2014	10.3	

21.1	List of Subsidiaries.	S-1	333-168792	October 1, 2010	10.10	
23.1	Consent of Deloitte & Touche LLP.					X
24.1	Power of Attorney (see the signature page to this Report).					X
31.1	Section 302 Certification of the Chief Executive Officer.					X
31.2	Section 302 Certification of the Chief Financial Officer.					X
32.1	Section 906 Certification of the Chief Executive Officer and Chief Financial Officer.					X

Exhibit Number	Description	Form	Previously Filed File No.	Filing Date	Exhibit	Filed Herewith
101	Interactive Data Files Pursuant to Rule 405 of Regulation S-T: (i) Consolidated Balance Sheets at December 31, 2014 and December 31, 2013, (ii) Consolidated Statements of Operations for each of the three years in the period ended December 31, 2014, (iii) Consolidated Statements of Stockholders' Equity for each of the three years in the period ended December 31, 2014, (iv) Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2014; and (iv) Notes to the Consolidated Financial Statements.					X

* Certain schedules and exhibits referenced in this document have been omitted in accordance with Item 601(b)(2) of Regulation S-K. A copy of any omitted schedule and/or exhibit will be furnished supplement ally to the SEC upon request.

† Certain portions have been omitted pursuant to a confidential treatment request. Omitted information has been filed separately with the SEC.

# Indicates a management contract or compensatory plan or arrangement required to be filed as an exhibit to this Report.

(b) Exhibits

See Item 15(a)(3) above.

(c) Financial Statement Schedules

See Item 15(a)(2) above.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized.

Gevo, Inc.

By: /s/ Mike Willis
Mike Willis

Chief Financial Officer
Date: March 30, 2015

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Patrick R. Gruber and Mike Willis, jointly and severally, as his or her attorney-in-fact, each with full power of substitution, for him or her, in any and all capacities, to sign each amendment to this report on Form 10-K, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of said attorneys-in-fact or his or her substitute or substitutes may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated:

Signatures	Title	Date
/s/ PATRICK R. GRUBER Patrick R. Gruber, Ph.D.	Chief Executive Officer (Principal Executive Officer) and Director	March 30, 2015
/s/ MIKE wILLIS Mike Willis	Chief Financial Officer (Principal Financial and Accounting Officer)	March 30, 2015

/s/ Shai Weiss Shai Weiss	Chairman of the Board of Directors	March 30, 2015
/s/ CARLOS A. CABRERA Carlos A. Cabrera	Director	March 30, 2015
/s/ RUTH I. DREESSEN Ruth Dreessen	Director	March 30, 2015
/s/ SAMIR KAUL Samir Kaul	Director	March 30, 2015
/s/ Ganesh M. Kishore Ganesh M. Kishore, Ph.D.	Director	March 30, 2015
/s/ Stacy J. Smith Stacy J. Smith	Director	March 30, 2015
/s/ GARY W. MIZE Gary W. Mize	Director	March 30, 2015
/s/ bruce A. Smith Bruce A. Smith	Director	March 30, 2015